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Testimony on CARB's Proposed Rulemaking for "PROPOSED REGULATION FOR GREENHOUSE GAS EMISSION STANDARDS FOR CRUDE OIL AND NATURAL GAS FACILITIES"

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July 21, 2016 Sacramento, California

I am Loni Russell, I am here today as a concerned citizen, a daughter and an aunt. I am a member and community organizer for Moms Clean Air Force California, a community of over 80,000 California parents fighting for clean air. On behalf of our members, I want to thank you for the opportunity to testify today.

I thank you for taking this important step in addressing methane pollution from oil and gas operations and respectfully urge you to move forward with your proposal, while considering two important changes:

- 1) The current proposal includes a "step-down" provision which would allow operators to shift to less rigorous monitoring requirements if it fails to find leaks over a specified number of inspections, this would create a perverse incentive to avoid finding and reporting leaks, and less of a reason to avoid fixing them quickly.
- 2) The current proposal pushes the implementation timeline by a year (from Jan 2017 to Jan 2018). Our communities cannot afford to wait until 2018 for the public health benefits.

The scientific record and public health co-benefits demonstrate that cutting methane pollution would provide strong public health protections for Californians and most importantly for our children.

I am no stranger to poor air quality growing up in the San Fernando Valley of Los Angeles, where my family still resides. Many of my relatives suffer from asthma.

Nearly 1 in every 10 schoolchildren in the US has asthma. Asthma being the number one health issue that causes kids to miss school.

Co-pollutants that leak along with methane lead to ozone formation, or smog, which is damaging to health. Numerous studies have found elevated smog in regions with oil and gas development, largely due to emissions of volatile organic compounds (VOC) and nitrogen oxides from these activities.

Standards that reduce methane emissions from oil and gas development will simultaneously reduce emissions and formation of health-damaging air pollutants, including VOC, hazardous air pollutants (HAP), particulate matter (PM2.5), and ozone.

Reducing all of these would reduce the exposure of nearby communities to these pollutants and the subsequent risk of health effects, including respiratory morbidity and premature death.

A large body of scientific research indicates that oil and gas development is associated with adverse health impacts. Empirical studies have found evidence for the following:

- 1) Higher reported health symptoms per person among residents who live close to gas wells
- 2) <u>Greater prevalence of adverse birth outcomes</u>, including congenital heart defects, neural tube defects, and low birth weight for infants born to mothers who live in high densities of natural gas development compared to no natural gas development

Children, pregnant women, and the elderly - are most susceptible to experiencing negative health impacts from oil and gas pollution.

Let's keep our most vulnerable safe with a strong standard that helps millions of children breathe easier.

Thank you for this opportunity to testify.

HOW OIL AND GAS OPERATIONS IMPACT YOUR BABY'S HEALTH

Air pollutants associated with oil and gas

operations are known to cause serious health

impacts in pregnant women, babies, and

children – as well as other adults.

babies are at increased risk of

A Pennsylvania study found that living near natural gas having lower birth weight

wells was associated with babies. Low birth weight early death, infections, and learning disabilities.

DID YOU KNOW?

- Children's lungs continue to develop after birth.
- Children breathe faster and spend more time outside than adults.
- Other organs like their brains and reproductive systems are also still developing after birth
- That makes children particularly vulnerable to air pollution.
- Pregnant women also need clean air.
- If the air you breathe is polluted, that can lead to health problems for your baby.
- dangerous air pollution, and government air monitors Companies are not required to monitor or disclose may not be sited close to natural gas activity.
- As a result, it's hard to find out whether you are breathing these pollutants in your community.

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close to natural gas wells were more likely to be born preterm (before 37 weeks gestation), babies whose mothers lived compared to babies whose mothers lived farther away In a Pennsylvania study,

from gas wells.

HEART DEFECTS

natural gas wells within a 10-mile In a Colorado study, babies whose increased risk of birth defects of mothers had large numbers of the heart, compared to babies radius of their home had an whose mothers had no wells within 10 miles of their

close to natural gas operations were more likely to be labeled Pregnancies in Pennsylvania that can include high blood "high-risk," a designation among mothers who lived pressure or excessive weight gain during oregnancy.

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WHAT IS HAPPENING TO BABIES IN OIL AND GAS REGIONS?

Preliminary studies have found that living near pollution emitted from oil and gas operations may be harmful to your baby's health.

RASHES

In Washington County, PA, people living less than 1 km from natural gas wells reported more rashes and other skin problems compared to people living greater than 2 km from wells.



RESPIRATORY SYMPTOMS

In Washington County, PA, people living less than 1 km from natural gas wells reported more upper respiratory symptoms like coughing, compared to people living greater than 2 km from wells.

HOSPITALIZATION RATE

A study in Pennsylvania showed that people living in ZIP codes with more gas wells were more likely to be hospitalized with heart problems compared to those living in ZIP codes with fewer gas wells. This study included children.



DIZZINESS, VOMITING, HEADACHES, NOSEBLEEDS

Anecdotal evidence and several case reports in many regions have reported this set of symptoms in communities near oil and gas operations.

MOMS clean air

Join other families in your community to demand protections from pollution.

www.momscleanairforce.org

OUR KIDS' HEALTH

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HOW CAN I PROTECT MY BABY?

Because the oil and gas industry does not monitor or disclose air pollution, you should document your family's health by writing down your observations. If you notice health problems, contact your local health department and your state environmental agency. Visit your doctor regularly, and discuss these issues with her.

AIR POLLUTANT	OIL AND GAS SOURCE	HEALTH IMPACTS
BENZENE	Occurs naturally in oil and gas; leaks during routine operations of natural gas wells, pipelines, compressor stations; also released by diesel-powered equipment.	Leukemia, asthma attacks, lung infections, low birth weight, headaches, vomiting, dizziness
DIESEL	Emitted from generators and trucks associated with oil and gas development. Pumps and compressor stations are often powered by diesel engines.	Asthma attacks, cancer, lung infections, heart disease, premature death.
FORMALDEHYDE	Emitted by compressor stations; created in the atmosphere when oil and gas pollutants, such as benzene, combine with heat and sunlight.	Asthma attacks, cancer.
METHANE	The main component of natural gas. Leaks at every point along the natural gas life cycle. Sometimes is vented deliberately into the air.	A powerful greenhouse gas that contributes to climate change. Health impacts of climate change include heat illness, asthma attacks, vector-borne infection, and disruptions to the global food supply.
PARTICLE POLLUTION	Emitted from generators and trucks used in oil and gas development. Pumps and compressor stations are often powered by diesel engines. Also caused by heavy truck traffic.	Infant death, asthma attacks, low birth weight, heart attacks, stroke, cancer, premature death
SILICA DUST	Sand is used in the process of hydraulic fracturing, or fracking. As sand is transported to well pads and poured into well shafts, silica dust can get into the air.	Cancer, silicosis.
SMOG (GROUND LEVEL OZONE)	Created when oil and gas pollutants, such as benzene, combine with heat and sunlight in the air.	Asthma attacks, lung infections, impaired lung development.