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**Idaho Conservation League**

PO Box 844, Boise, ID 83701  
208.345.6933

5/24/16

Paula Wilson  
Idaho Department of Environmental Quality  
1410 N. Hilton  
Boise, ID 83706

Submitted via email: [paula.wilson@deq.idaho.gov](mailto:paula.wilson@deq.idaho.gov)

**RE: Idaho Conservation League comments on Docket No. 58-0101-1601:  
Preliminary Draft No. 1 of DEQ's Crop Residue Burning Rule**

Dear Ms. Wilson,

Thank you for the opportunity to comment on the first preliminary draft of DEQ's Crop Residue Burning (CRB) Rule. Since 1973, the Idaho Conservation League has been Idaho's leading voice for clean air, clean water, and wilderness—values that are the foundation for Idaho's extraordinary quality of life. The Idaho Conservation League works to protect these values through public education, outreach, advocacy and policy development. As Idaho's largest state-based conservation organization, we represent over 25,000 supporters, many of whom have a deep personal interest in protecting and restoring air quality throughout Idaho.

Clean air is a vital component for communities to flourish and is critical for the health and welfare of Idaho's citizens and the tourist industry. Since the enactment of the existing CRB rules, Idaho has experienced a dramatic decrease in citizen complaints regarding the health effects of burning crop residue – from over 1,700 complaints in 2001 to only 14 complaints in 2015, of which only 5 were associated with crop burning.

Though the success of the existing CRB rules is promising, continued analyses, an evolving understanding of the constituents of most concern, and a reduction in the National Ambient Air Quality Standard (NAAQS) for ozone have all instigated a change in the existing rules.

The current CRB rules prohibit burning on days when ambient air quality has ozone and PM<sub>2.5</sub> levels that exceed 75% of the respective NAAQS for each constituent. These thresholds are proving problematic because days with high ambient air concentrations of ozone often coincide with ideal weather conditions for dispersal of smoke plumes. As a result of the existing thresholds, burn events have occasionally occurred on days with

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only marginal weather conditions that provide less than ideal dispersion and prolonged local exposure to nearby communities.

To remedy this issue and facilitate burning on days with optimal weather conditions for maximum dispersion, the draft rules propose relaxing (i.e. less stringent) the ozone threshold from 75% to 90% of the NAAQS. The EPA recently decreased the ozone NAAQS from 75 ppb to 70 ppb; however even with this reduction in the NAAQS the change from 75% to 90% still represents a less stringent threshold with the ozone limits necessary to approve burn days changing from 56 ppb to 63 ppb, respectively.

When considering a relaxation of ozone standards, one must not disregard the potential health effects of ozone exposure, including: irritating the respiratory system, reducing lung function, inflaming and damaging cells that line your lungs, increasing your lungs susceptibility to infection, aggravating asthma and other chronic lung diseases such as emphysema and COPD, and most seriously, causing permanent lung damage. Repeated short-term ozone damage to children's developing lungs may lead to reduced lung function in adulthood. Though ozone poses a serious risk to human health, DEQ asserts that less harm would be done to communities if burns were allowed under higher ozone levels associated with ideal weather conditions that generate better dispersal.

Of greater concern are ambient air concentrations of PM<sub>2.5</sub> and the contribution from crop residue burning. Dr. Craig Dietrich, with the Idaho Department of Health and Welfare's (IDHW) Environmental Health Education and Assessment Program (EHEAP), presented results from a study performed at the request of DEQ analyzing the negative health effects associated with ozone and PM<sub>2.5</sub><sup>1</sup>. Dr. Dietrich's presentation included the most recent science available that analyzed data over variable geographic regions and time periods (both annually and seasonally). The science unanimously concluded that PM<sub>2.5</sub> is attributable to over twice as many premature deaths relative to ozone.

The act of burning crop residue serves as a direct emission source of PM<sub>2.5</sub> into the atmosphere. It is therefore crucial that the allowable burn thresholds defined in the CRB rules are stringent enough to provide a safety factor mitigating the release of PM<sub>2.5</sub> during burn events and protecting nearby residents.

Further compounding the health concerns related to PM<sub>2.5</sub> released during crop burning is the increased exposure resulting from wildfires. Wildfire season has increased nearly 20% over the past 35 years, and the increasing wildfire season trend is projected to continue as Idaho transitions into a warmer and more rain dominated winter season<sup>2</sup>. Accompanying this precipitation regime shift will be decreases in snowpack volume and spatial extent, an increased number of trees killed as a result of bark beetle infestations, and a prolonged summer season with elevated temperatures. These are all primary influencers of wildfires, and as is becoming ubiquitous throughout Western States,

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<sup>1</sup> <http://www.deq.idaho.gov/media/60178475/58-0101-1601-health-welfare-presentation-051816.pdf>

<sup>2</sup> U.S. EPA. 1998. *Climate Change and Idaho*. National Service Center for Environmental Publications. EPA 236-F-98-007f

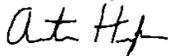
indicate that the extent, magnitude, and duration of wildfires will increase. With increasing wildfires come increasing concentrations of PM<sub>2.5</sub> in the atmosphere. The projected increases in wildfires and related PM<sub>2.5</sub> are well underway, and mitigation of these hazards is beyond DEQ's control. However, this presents a prudent obligation for DEQ to appropriately manage the sources of PM<sub>2.5</sub> it can control, such as PM<sub>2.5</sub> emissions resulting from crop residue burning.

In an attempt to balance the relaxation of the ozone standard, the proposed rule changes include the tightening (i.e. more stringent) of the PM<sub>2.5</sub> threshold from 75% of the NAAQS to 65% of the NAAQS. Balancing the changes between ozone and PM<sub>2.5</sub> is critical to the success of this program and its protection of human health for all Idahoans. However, we disagree with DEQ's choice to reduce the stringency of ozone thresholds by 15% but only increase the stringency of PM<sub>2.5</sub> thresholds by 10% given the evidence presented herein, including: crop residue burning is a source PM<sub>2.5</sub> therefore necessitating adequate safety factors built into the rules to control exposure to nearby communities, Dr. Dietrich's presentation illustrating the substantially greater threat PM<sub>2.5</sub> poses relative to ozone, and the increase of PM<sub>2.5</sub> in the atmosphere as a result of increased wildfires. The loosening of the ozone standard should be accompanied by an equivalent or greater tightening of the PM<sub>2.5</sub> standard given its greater risk to public health.

It has been requested that DEQ perform an analysis detailing the effect a change to 60% of the NAAQS for PM<sub>2.5</sub> would have on the number of burn days available for growers. We look forward to reviewing DEQ's analysis and suspect it will not significantly alter the number of available burn days relative to the proposed 65% threshold. In meetings preceding this negotiated rulemaking, the Crop Residue Burning Advisory Committee – a committee made up of growers, health professionals, and environmental groups – recommended the use of 60% of the NAAQS for PM<sub>2.5</sub>. It seems likely that a 60% threshold for PM<sub>2.5</sub> would be agreeable to all parties due to its facilitation of burning on more days with better weather conditions while balancing and compensating the concerns of health officials and the environmental community.

Please do not hesitate to contact me at 208-345-6933 ext. 23 or [ahopkins@idahoconservation.org](mailto:ahopkins@idahoconservation.org) if you have any questions regarding our comments or if we can provide you with any additional information on this matter.

Sincerely,



Austin Hopkins  
Conservation Assistant