



ORCAA's comments on Ecology rulemaking regarding flame cap kilns and air curtain incinerators

*NOTE: Text listed in **BLUE** represents changes/additions proposed by ORCAA. Text listed in **RED** represent changes proposed by the Department of Ecology.*

Background

Ecology regulations – including WAC 173-400, general regulations for air pollution sources rule; WAC 173-425, outdoor burning rule; and WAC 173-430, agricultural burning rule – are currently open for revision to accommodate 2024 changes to RCW 70A.15 from SSB 6121.

The proposed revisions include adding the definition of “flame cap kiln” and modifying the definition of “silvicultural burning.” The proposal also addresses the use of air curtain incinerators, another type of outdoor burning device. The air curtain incinerator language includes information on the process of obtaining a permit for their use from Ecology or local clean air agencies. This rulemaking may also consider other amendments to these chapters to clarify language and improve regulatory requirements for air quality.

General Comments

ORCAA agrees with the intent to define flame cap kilns and air curtain incinerators in the relevant WACs. Clear definitions for flame cap kilns and air curtain incinerators will help Ecology and local clean air agencies work with stakeholders and the public to maintain good air quality.

With the rules open for revision, ORCAA encourages Ecology to also consider changes to improve clean air in Urban Growth Areas (UGAs) by prohibiting agricultural burns in those areas. Land clearing burning and residential burning are prohibited in UGAs per WAC 173-425. Since alternatives exist for these types of burning, we believe alternatives exist for agricultural burning as well. The density of residential sites within UGA's leaves very little separation between agriculture smoke and nearby residences. ORCAA believes agricultural burning within UGAs should be prohibited.

Based on Ecology's proposed rule updates, ORCAA suggests the following additional updates to provide additional clarity to regulatory agencies, stakeholders and the general public to help ensure good air quality. In the text below, red text indicates Ecology's proposed rule revisions while blue text represents ORCAA's suggested additional clarifications.

173-425 Outdoor Burning

173-425-050 Other prohibitions/requirements that apply to all outdoor burning.

(5) Burning in outdoor containers. Outdoor containers (such as burn barrels **and other incinerators not regulated under WAC 173-400-070(1))** **are not allowed** ~~used~~ for outdoor burning. **To use an outdoor burn container, it** must be constructed of clean concrete or masonry with a completely enclosed combustion chamber and equipped with a permanently attached spark arrester constructed of iron, heavy wire mesh, or other noncombustible material with openings not larger than one-half inch, and they may only be

used in compliance with this chapter. Any use of flame cap kilns is regulated under chapter WAC 173-430

173-430 Agriculture Burning

WAC 173-430-010 – Purpose of the regulation.

(3) Encouraging and developing economically feasible alternative methods to agricultural burning, such as chipping, hauling to a commercial composter, or composting onsite, especially in UGAs.

173-430-030 Definition of terms.

(8) Field burning: Agricultural burning of vegetative residue on an area of land used in an agricultural operation. Field burning does not include pile burning.

(9) "**Flame cap kiln**" means an outdoor container used for the combustion of natural vegetation from silvicultural or agricultural activities that meets the following requirements:

- (a) Has a solid or sealed bottom including, but not limited to, mineral soils, so that all air for combustion comes from above;
- (b) Is completely open on top with no restrictions;
- (c) Is a shallow container where the width is greater than the height; and
- (d) Has a volume of 10 cubic meters or less.
- (e) Is no wider than fifteen (15) feet.
- (f) Does not have any residue from any type of material that can be hazardous when burned (material for containment must be of a clean metal, not galvanized, and not have been used for holding petroleum-based products or chemicals or chemicals of any type).

173-430-040 Agriculture burning requirements

(1) Agricultural burning is allowed when it is reasonably necessary to carry out the enterprise. A farmer can show it is reasonably necessary when it meets the criteria of the best management practices, and no practical alternative is reasonably available. In certain circumstances, ecology may certify an alternative to burning. Where the certified alternative is reasonably available, burning is not allowed. Certified alternatives are described in WAC 173-430-045. The use of a flame cap kiln as defined in WAC 173-430-030 is acceptable as long as permitting processes, permit conditions, and fee requirements are followed.

(2) For allowed agricultural burning, ecology or local air authorities with jurisdiction will make daily or specific fire burn calls (during times of anticipated burning) and use metering when necessary to minimize the potential for adverse air quality impacts. Metering is a technique of limiting emission from burning at specific times and places by ~~taking into account~~ considering potential emission rates, forecasted weather (dispersion), and current and projected air quality. The burn decision process will consider: The potential number of

burns and their expected size(s) and duration(s); recent and current ambient concentrations of pollutants; other potential emissions sources; and evaluations and judgments about how foreseeable meteorological conditions will affect concentrations of pollutants in the air sheds.

WAC 173-400 General Regulations for Air Pollution Sources

WAC 173-400-050 Emission standards for combustion and incineration units.

(1) Combustion and incineration emissions units must meet all requirements of WAC 173-400-040 and, in addition, no person shall cause or allow emissions of particulate matter in excess of 0.23 gram per dry cubic meter at standard conditions (0.1 grain/dscf), except, for

(a) ~~an~~ An emissions unit combusting waste wood for the production of steam.

(b) An air curtain incinerator disposing of waste wood that would otherwise be legal for silvicultural, agricultural, or open burning.

No person shall allow the emission of particulate matter in excess of 0.46 gram per dry cubic meter at standard conditions (0.20 grain/dscf), as measured by 40 C.F.R. Part 60, Appendix A, Test Method 5 (in effect on the date in WAC 173-400-025), **including the use of emissions units described in (1)(a) and (1)(b).**

The use of an air curtain incinerator shall meet the opacity limits in 173-400-040(2).

Summary

ORCAA supports the use of flame cap kilns and air curtain incinerators provided they are used in a manner that reduces emissions relative to open burning. These devices have the potential to reduce emissions relative to open burning. However, if the material to be burned is not monitored to ensure a clean feedstock and if the combustion of the material is not controlled to ensure the proper amount of oxygen, emissions from these devices could increase relative to open burning. ORCAA also recommends the elimination of agricultural burning in UGA's. Since the burn restrictions that came about in 2007, limiting burning in UGA's, alternatives to burning in those area have developed and are being used in other circumstances, so they could be used for agricultural burning as well.