

DRAFT WOOD SMOKE NUISANCE ORDINANCE

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That a new Chapter 15.16 is added to the Berkeley Municipal Code to read as follows:

**Chapter 15.16**  
**WOOD SMOKE NUISANCE**

**Sections:**

- 15.16.010 Findings and purpose.**
- 15.16.020 Definitions.**
- 15.16.030 Procedures.**
- 15.16.040 Standards for resolution of disputes.**
- 15.16.050 Enforcement.**

**15.16.10 Findings and purpose.**

A. The City Of Berkeley considers that fireplaces are a desirable amenity. however, wood smoke consists of fine particles, which have been shown to be a potential health hazard. The operation of wood burning appliances therefore needs to be controlled so as not to cause significant health risks to unwilling bystanders.

B. Concentrations of particulate matter from wood smoke generated by non-compliant fireplaces and woodstoves create local conditions that may significantly exceed air quality standards and adversely affect nearby residents. Calculations indicate that the particulate levels at any given distance vary significantly with chimney height and the relative elevation of the terrain near the chimney. For the worst case the California Air Resources Board (CARB) Air Quality Standard for 24-hour average PM10 concentration may be exceeded at a distance of 120 feet from a non-compliant wood burning appliance operating for one hour. At 40 feet, the particulate levels from most non-compliant wood burning appliances exceeded the CARB standard in one half hour, and the worst-case fireplace exceeded it in 15 minutes. Although the air quality standard can be exceeded even under moderately windy conditions, the highest concentrations occur under relatively still conditions, and therefore do not strongly depend on wind direction. Improper operation increases particulate concentrations, so that even a compliant stove can create conditions exceeding the air quality standard if operated improperly.

C. Residents affected by wood smoke currently have no recourse to limit or stop their exposure and potential health impacts. Furthermore, calculations indicate that potential district wide implementation of the "spare-the-night" bans on wood burning

are not sufficient to resolve purely local problems with a neighbor's wood burning appliance.

D. It is necessary to allow citizens recourse in case where they are being unwillingly exposed to wood smoke and may be suffering potential health impacts.

E. Therefore, it is the purpose of this ordinance is to protect the health of people who live immediately adjacent to indoor wood burning appliances that do not meet EPA standards or that are being improperly operated and are being exposed to adverse health impacts.

#### **15.16.020 Definitions.**

For the purposes of this chapter, the following definitions apply:

A. "Wood burning appliance" means any residential fireplace, fireplace insert, or woodstove.

B. "Non-compliant" means any fireplace, fireplace insert, or woodstove that does not meet EPA emission standards.

C. "Complaining party" means any person who wishes to alter or control the use of another person's wood burning appliance to address a smoke health hazard.

D. "Wood burning appliance operator" means any individual operating a wood burning appliance.

E. "Smoke health hazard" means operation **of a wood burning appliance under circumstances that create unhealthy conditions.** Operation of a non-compliant indoor wood burning appliance, or improper operation of a compliant wood burning appliance, within 120 feet from an inhabited structure that is not occupied by the operator, at any time when the occupant of that structure is, or would like to be, present, **creates a smoke health hazard.** A smoke health hazard is a private nuisance if it interferes with the use and enjoyment of an inhabited structure that is not occupied by the operator. The person who is affected by a smoke health hazard is a person as to whom that nuisance is especially injurious under Civil Code section 3493.

F. "Smoke health hazard claim" means the written basis for arbitration or court action under the provisions of this article.

G. "Improper operation of a wood burning appliance" means operation that produces extensive, clearly visible smoke for more than five minutes duration, or the use of improper fuels as evidenced by smoke, odor or direct determination. If, at a future date, the Bay Area Air Quality Management District develops an objective opacity standard for smoke plumes, that standard shall be considered in determining whether there has been visible smoke.

H Particulate Matter (PM): PM may be divided into many size fractions, measured in microns (one-millionth of a meter). California Air Resources Board (CARB) regulates two size classes of particles - particles up to 10 microns (PM<sub>10</sub>) and particles up to 2.5 microns in size (PM<sub>2.5</sub>). PM<sub>2.5</sub> particles are a subset of PM<sub>10</sub>.

#### **15.16.030 Procedures.**

The following procedures shall be followed in the resolution of disputes about smoke health hazards under this chapter.

A. Initial reconciliation: A complaining party who believes that the operation of a wood burning appliance has created a smoke health hazard shall notify the wood burning appliance operator in writing, within 30 days of an occurrence of the smoke health hazard. The letter of notification must include a description of the problem and a reference to this chapter. The notification should, if possible, be preceded by personal discussions to enable the complaining party and wood burning appliance operator to attempt to reach a mutually agreeable solution.

B. 1. If the initial reconciliation attempt fails, the complaining party shall propose mediation. Acceptance of mediation by the wood burning appliance operator shall be voluntary. However if the operator does not reply in writing within 30 days, the injured party may file an action in Superior Court pursuant to subdivision C of this section. If mediation is elected, the parties shall mutually agree upon a mediator.

2. The mediation meeting may be informal, and no written record is necessary unless desired by the parties. The mediation process may include the hearing of viewpoints of lay or expert witnesses, and may include a site visit to the properties of the complaining party and the wood burning appliance operator. Parties should give notice to immediate neighbors and solicit input. The mediator shall consider the evidence set forth in this chapter in attempting to help both parties reach a resolution of the dispute. The mediator shall not have the power to issue binding orders, but shall strive to enable the parties to resolve their dispute at this stage in order to eliminate the need for binding arbitration or litigation.

C. In the event that the initial reconciliation process fails and mediation either is not elected or fails, the complaining party must prepare a smoke health hazard claim and provide a copy to the operator, in order to pursue either binding arbitration or litigation. A smoke health hazard claim shall include:

1. Evidence of the smoke health hazard and nuisance as set forth in Section 15.16.040.A

2. The address of the property where the wood burning appliance is alleged to have caused the smoke health hazard, and the present chimney owner's name and address.

3. Any mitigating actions proposed by the parties involved resolving the smoke health hazard claim.

4. The failure of personal communication between the complaining party and the wood burning appliance operator to resolve the alleged smoke health hazard as set forth in Section 15.16.030 of this chapter. The complaining party must provide physical evidence that written attempts at reconciliation have been made and failed. Evidence may include, but is not limited to, copies of and receipts for certified or registered mail correspondence.

D. Binding arbitration: The complaining party must offer to submit the dispute to binding arbitration and the operator may elect binding arbitration. Both the complaining party and the operator shall agree in writing upon the identity of the

arbitrator. This agreement may provide for employment of experts representing the parties or may be limited to an investigation of the smoke health hazard claim conducted by the arbitrator. The arbitrator shall follow the provisions of this chapter to reach a fair resolution of the smoke health hazard claim and shall submit a complete written report to the complaining party and the wood burning appliance operator. This report shall include the arbitrator's findings with respect to evidence and remedial action as set forth in Section 15.16.040

E. Litigation: If binding arbitration is not elected, or the decision from binding arbitration is not followed, the complaining party may file an action in a court of competent jurisdiction for resolution of the smoke health hazard claim under the provisions of this chapter.

#### **15.16.040 Standards for resolution of disputes.**

In resolving the smoke health hazard dispute, the mediator, arbitrator or court shall consider the evidence that operation of the wood-burning appliance is causing particulate levels to exceed California air quality standards. If the wood-burning appliance is non-compliant, the burden of proof shall be on the wood burning appliance operator to show that a demonstrated smoke health hazard condition is not causing a smoke hazard nuisance condition. If the wood-burning appliance is compliant, the burden of proof shall be on the complaining party to demonstrate that a nuisance condition prevails.

A. Evidence: The following evidence shall be considered in determining whether a wood-burning appliance causes a smoke health hazard condition and a nuisance condition, and in determining the appropriate remedial action.

1. Evidence that the appliance has been used when the complaining party has been present. This can be photographic evidence, or testimony from a second party.

2. Determination that the wood-burning appliance is, or is not, an EPA certified unit. The burden of proof in the determination that an appliance is EPA certified is on the wood burning appliance operator.

3. Evidence that smoke or particulate matter is impacting the complainant's residence. This can be photographic evidence or corroborating testimonial from a second party of a smoke plume impinging on the complainant's residence. Wood smoke that is not clearly visible may still create a smoke health hazard. If the smoke plume is not visible more than a few feet from the operating chimney, evidence that the complainant is a nearest neighbor and their residence is within 120 feet of the chimney is evidence that particulate matter is impacting the complainant's residence.

4. Clearly visible smoke of more than 5 minutes duration shall constitute evidence of improper operation of a wood burning appliance. Proof of clearly visible smoke may be from time stamped video or photographic evidence and corroborating testimonial evidence from a second party or from BAAQMD evaluations.

5. Direct physical measurements under the conditions that are in dispute, or detailed computer calculations using generally accepted programs, such as ISCST3 or AERMOD and appropriate input values.

**6. Documentation that the complainant has a health problem that puts them at risk if they are exposed to smoke.**

B. The mediator shall recommend, or the arbitrator or court shall order, remedial action appropriate to abate the nuisance, if any.

1. Remedial actions may include written directions as to appropriate operation and fueling of a wood-burning appliance if improper operation has been shown.

2. Remedial options for a non-compliant wood-burning device may also include the further options of requiring replacement of the unit with an EPA certified unit, or proof that the offending unit has been removed or rendered permanently inoperable. Restriction on use (time, fuel, or weather conditions) may be combined with the requirement to replace the existing non-compliant unit with an EPA compliant unit, if neither option by itself appears likely to control the wood smoke health hazard nuisance condition.

**3. If an EPA certified stove is being properly operated, remedial actions may consist of restrictions on when the wood burning appliance may be operated, taking into account weather conditions and the presence of the injured party.**

#### **15.16.050 Enforcement.**

A nuisance under this chapter is not a misdemeanor or infraction, and the enforcement of this chapter shall be by private parties only. The complaining party shall have the right to bring injunctive action to enforce any restorative action ordered pursuant to this chapter.

Section 2. Copies of this Ordinance shall be posted for two days prior to adoption in the display case located near the walkway in front of Council Chambers, 2134 Martin Luther King Jr. Way. Within 15 days of adoption, copies of this Ordinance shall be filed at each branch of the Berkeley Public Library and the title shall be published in a newspaper of general circulation.