

OPEN BURNING POLICY & GUIDELINES

**State of Alaska
Department of Environmental Conservation
Division of Air Quality
Air Permits Program**



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“A successful burn is one in which no complaints are received by the Department.”

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POLICY AND GUIDELINES

The State of Alaska has two basic concerns with open burning: 1) that it does not spread and become a wildfire, and 2) that it does not cause air pollution that creates a health hazard or a public nuisance. The Department of Natural Resources (DNR) is responsible for regulations and permits to address the first concern (fire safety). The Department of Environmental Conservation (DEC) is responsible for regulations and permits to address the second concern (environmental protection).

It is the policy of the DEC to eliminate, minimize, or control open burning and to encourage other methods of disposal where possible. When open burning is permitted by the DEC, the permittee must provide for the most efficient combustion possible for the material to be burned. The DEC supports the maximum recycling and utilization of wood and forest products to reduce the volume of material requiring burning.

All open burning in the state, whether requiring written approval from DEC or not, must be done in a way that maintains maximum combustion efficiency throughout the burning period.

18 AAC 50.110. AIR POLLUTION PROHIBITED.

A person may not cause or permit any emission that is injurious to human health or welfare, animal or plant life, or property, or that would unreasonably interfere with the enjoyment of life or property.

18 AAC 50.065. OPEN BURNING.

(a) Except when conducting open burning under (g), (h), or (i) of this section, a person conducting open burning shall comply with the limitations of (b) - (f) of this section and shall ensure that

- (1) the material is dried or kept covered to the greatest extent possible prior to burning;
- (2) before igniting the burn, noncombustibles are separated;
- (3) natural or artificially induced draft is present;
- (4) to the greatest extent practicable, combustibles are separated from grass or peat layer;
- (5) combustibles are not allowed to smolder (burn and smoke without flame).

(b) **Black Smoke Prohibited.** Except for firefighter training conducted under (h) or (i) of this section, open burning of asphalt products, rubber products, plastics, tars, oils, oily wastes, contaminated oil cleanup materials, or other materials in a way that gives off black smoke is prohibited without written DEC approval. DEC approval of open burning as an oil spill response countermeasure is subject to the DEC's *In Situ Burning Guidelines for Alaska*, adopted by reference in 18 AAC 50.035. Open burning approved under this section is subject to the following limitations:

(1) opening burning of liquid hydrocarbons produced during oil or gas well flow tests may occur only when there are no practical means available to recycle, reuse, or dispose of the fluids in a more environmentally acceptable manner;

(2) the person who conducts open burning shall establish reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated; and

(3) the DEC will, in its discretion, as a condition of approval issued under this subsection, require public notice as described in (j) of this section.

(c) **Toxic and Acid Gases and Particulate Matter Prohibited.** Open burning or incineration of pesticides, halogenated organic compounds, cyanic compounds, or polyurethane products in a way that gives off toxic or acidic gases or particulate matter is prohibited.

(d) **Adverse Effects Prohibited.** Open burning of putrescible garbage, animal carcasses, or petroleum-based materials, including materials contaminated with petroleum or petroleum derivatives, is prohibited if it causes odor or black smoke that has an adverse effect on nearby persons or property.

(e) **Air Quality Advisory.** Open burning is prohibited in an area if the DEC declares an air quality advisory under 18 AAC 50.245, stating that burning is not permitted in that area for that day. This advisory will be based on a determination that there is or is likely to be inadequate air ventilation to maintain the standards set by 18 AAC 50.010. The DEC will make reasonable efforts to ensure that the advisory is broadcast on local radio or television.

(f) **Wood Smoke Control Areas.** Open burning is prohibited between November 1 and March 31 in a wood smoke control area identified in 18 AAC 50.025(b).

(g) **Controlled Burning.** Controlled burning to manage forest land, vegetative cover, fisheries, or wildlife habitat, other than burning to combat a natural wildfire, requires written DEC approval if the area to be burned exceeds 40 acres yearly. The DEC will, in its discretion, require public notice as described in (j) of this section.

(h) **Firefighter Training: Structures.** A fire service may open burn structures for firefighter training without ensuring maximum combustion efficiency under the following circumstances:

(1) before igniting the structure, the fire service shall

(A) obtain DEC approval for the location of the proposed firefighter training; approval will be based on whether the proposed open burning is likely to adversely affect public health in the neighborhood of the structure;

(B) visually identify materials in the structure that might contain asbestos, test those materials for asbestos, and remove all materials that contain asbestos;

(C) ensure that the structure does not contain

(i) putrescible garbage;

(ii) electrical batteries;

(iii) stored chemicals such as fertilizers, pesticides, paints, glues, sealers, tars, solvents, household cleaners, or photographic reagents;

- (iv) stored linoleum, plastics, rubber, tires, or insulated wire;
- (v) hazardous waste;
- (vi) lead piping;
- (vii) plastic piping with an outside diameter of four inches or more; or
- (viii) urethane or another plastic foam insulation;

(D) provide public notice consistent with (j) of this section; and

(E) ensure that a fire-service representative is on-site before igniting the structure;

(2) the fire service shall ignite and conduct training on only one main structure and any number of associated smaller structures at a time; examples of associated smaller structures are garages, sheds, and other outbuildings; and

(3) the fire service shall respond to complaints in accordance with (k) of this section.

(i) **Firefighter Training: Fuel Burning** Error! Bookmark not defined.. Unless a greater quantity is approved by the DEC, a fire service may open burn up to 250 gallons of uncontaminated fuel daily and up to 600 gallons yearly for firefighter training without ensuring maximum combustion efficiency. To conduct this training without prior written DEC approval, the fire service shall

(1) provide public notice consistent with (j) of this section before burning more than 20 gallons of uncontaminated fuel, unless waived in writing by the DEC; and

(2) respond to complaints in accordance with (k) of this section.

(j) **Public Notice.** A person required to provide public notice of open burning shall issue the notice through local news media or by other appropriate means if the area of the open burning does not have local news media. The public notice must be issued as directed by the DEC and must

(1) state the name of the person conducting the burn;

(2) provide a list of material to be burned;

(3) provide a telephone number to contact the person conducting the burn before and during the burn;

(4) for a surprise fire drill, state

(A) the address or location of the training; and

(B) the beginning and ending dates of the period during which a surprise fire drill may be conducted may not exceed 30 days; and

(5) for open burning other than a surprise fire drill, the notice must also state the expected time, date, and location of the open burning.

- (k) **Complaints.** A person required to provide public notice of open burning shall:
- (1) make a reasonable effort to respond to complaints received about the burn;
 - (2) keep a record for at least 30 days of all complaints received about the burn, including:
 - (A) the name, address, and telephone number of each person who complained;
 - (B) a short summary of each complaint; and
 - (C) any action the person conducting the open burning took to respond to each complaint; and
 - (3) upon request, provide the DEC with a copy of the records kept under (2) of this subsection. (Eff. 1/18/97, Register 141)

Authority: AS 46.03.020, AS 46.03.710, AS 46.14.010, AS 46.14.020, AS 46.14.030, Sec. 30, ch. 74, SLA 1993

AS 46.14.990 DEFINITION.

(2) "ambient air" has the meaning given in 40 CFR 50.1, which means that portion of the atmosphere, external to buildings, to which the general public has access.

18 AAC 50.990 DEFINITIONS.

(14) "black smoke" means smoke having the color of emissions produced by the incomplete combustion of toluene in the double wall combustion chamber of a smoke generator.

(40) "fire service" means a fire Department registered with the state fire Marshall under 13 AAC 52.030, an organized fire brigade established under 8 AAC 61.010, Subchapter 01.1302(a)(1), and a wildland fire suppression organization within the Alaska Department of Natural Resources, Division of Forestry, the United States Forest Service, or the United States Bureau of Land Management/Alaska Fire Service.

(47) "impairment of visibility" means a humanly perceptible change in visibility such as visual range, contrast, or coloration, from that which would exist under natural conditions.

(62) "open burning" means the burning of a material that results in the products of combustion being emitted directly into the ambient air without passing through a contaminant outlet.

(64) "organic vapors" means any organic compound or mixture of compounds evaporated from volatile liquid or any organic compound or mixture of compounds in aerosols formed from volatile liquid.

(74) "practical means available" means, when approving the open burning of liquid hydrocarbons produced during oil or gas well testing, that all alternative disposal methods will have been analyzed and, where an environmentally acceptable procedure exists, it will be required.

(75) "putrescible garbage" means material capable of being decomposed with sufficient rapidity to cause nuisance or obnoxious odors.

(78) "reduction in visibility" means the obscuring of an observer's vision.

(81) "responsible official" means:

(A) for a corporation, a president, secretary, treasurer, or vice-president of the corporation in charge of the principal business function, or any other person who performs similar policy or decision making functions for the corporation, or a duly authorized representative of that person if the representative is responsible for the overall operation of one or more manufacturing, production, or operation facilities applying for or subject to a permit under AS 46.14 or this chapter, and

(i) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$35 million in second quarter 1980 dollars; or

(ii) the delegation of authority to the representative is approved in advance by DEC;

(B) for a partnership or sole proprietorship, a general partner or the proprietor, respectively; and

(C) for a public agency, a principal executive officer or ranking elected official; for the purposes of this chapter, a principal executive officer of a federal agency includes the chief executive officer with responsibility for the overall operations of a principal geographic unit in this state.

(85) "smolder" means to burn and smoke without flame.

(96) "uncontaminated fuel" means a hydrocarbon fuel, excluding propane, that does not contain used oil, crude oil, or a hazardous waste.

18 AAC 50.245. AIR EPISODES AND ADVISORIES.

(a) The DEC will, in its discretion, declare an air episode and prescribe and publicize curtailment action when the concentration of an air contaminant in the ambient air has reached, or is likely in the immediate future to reach, any of the concentrations established in Table 5 in this subsection.

(b) The DEC will declare an air quality advisory when, in its judgment, air quality or atmospheric dispersion conditions exist that might threaten public health.

(c) If the DEC declares an air quality advisory under (b) of this section, the DEC will

(1) request voluntary emission curtailments from any person issued a permit under this chapter whose facility's emissions might impact the area subject to the advisory; and

(2) publicize actions to be taken to protect public health. (Eff. 1/18/97, Register 141)

Table 5 - Concentrations Triggering an Air Episode~~Error! Bookmark not defined.~~

| Episode Type | Air Contaminant | Concentration (micrograms per cubic meter) |
|---------------|--|--|
| Air alert | Sulfur dioxide | 365 (24-hour average) |
| | PM-10 | 150 (24-hour average) |
| | PM-10 from wood burning (wood smoke control areas) | 92 (24-hour average) |
| | Carbon monoxide | 10,000 (8-hour average) |
| Air warning | Sulfur dioxide | 800 (24-hour average) |
| | PM-10 | 350 (24-hour average) |
| | Carbon monoxide | 17,000 (8-hour average) |
| Air emergency | Sulfur dioxide | 1,600 (24-hour average) |
| | PM-10 | 420 (24-hour average) |
| | PM-10 from wood burning (wood smoke control areas) | During an air alert, a concentration measured or predicted to exceed 92 (24-hour average), and to continue to increase beyond the concentration that triggered the air alert |
| | Carbon monoxide | 34,000 (8-hour average) |

Authority: AS 46.03.020, AS 46.14.010, AS 46.14.020, AS 46.14.030, Sec. 30, ch. 74, SLA 1993

ARTICLE 4. USER FEES.

18 AAC 50.400. PERMIT ADMINISTRATION FEES.

(l) Except as provided in (m)(10) of this section, the fee for DEC approval of open burning under 18 AAC 50.065 is \$200.

(m) Unless the designated regulator service is subject to a fixed fee set out in (a) – (l) of this section, or to the terms of a negotiated service agreement under AS 37.10.052(b) and 18 AAC 50.405, the permittee, owner, or operator shall pay an hourly permit administration fee for a designated regulatory service. The DEC will calculate the total amount due under this subsection by multiplying the number of hours the DEC spent to provide the designated regulatory service by the hourly rate of salary and benefits of the DEC employees who provided the designated regulatory service, and by adding to the resulting amount any other direct costs. Designated regulatory services subject to this subsection include regulator services for:

(10) DEC approval of open burning under 18 AAC 50.065, if the DEC determines that smoke incursion into a public place, into an airport, into a Class I area, into a nonattainment area for CO or PM-10, or into a maintenance area for CO or PM-10 is likely.

(Eff. 1/18/97, Register 141; am 6/21/98, Register 146; am 10/1/04, Register 171; am 12/1/04, Register 172)

Authority: AS 44.46.025, AS 46.14.140, AS 46.14.240, AS 46.03.020, AS 37.10.050, AS 37.10.052, AS 37.10.058

AREA-WIDE POLLUTANT CONTROL EFFORTS FOR OPEN BURNING

Control of open burning incidences for air pollution is the responsibility of the DEC. Open burning is defined as, "the burning of a material that results in the products of combustion being emitted directly into the ambient air without passing through a contaminant outlet." All open burning in the state, whether requiring written approval from the DEC or not, must be done in a way that maintains maximum combustion efficiency throughout the burning period.

Open burning at landfills is also controlled by solid waste disposal regulations, 18 AAC 60.355. Open burning is prohibited at Class I and II landfills.

MATERIALS THAT CANNOT BE OPEN BURNED:

- Spill absorbents and contaminated soils that are RCRA hazardous waste.
- Pesticides, halogenated organic compounds, cyanic compounds or polyurethane products burned in a way that gives off toxic or acidic gases or particulates.
- Putrescible garbage, animal carcasses, or petroleum-based materials burned in a way that causes odor or black smoke that may have an adverse effect on nearby persons or residences.
- Electrical batteries, all types and sizes.
- All liquid-form paints (e.g. in cans).
- Lead-based painted wood debris, if classified as RCRA hazardous waste. For more guidance concerning wood with lead-based paint, please contact EPA RCRA office, Diane Richardson, at 907-271-6329.
- All solvents, except those composed of water and soap/detergent solutions.
- All aerosol cans, except that those do not use chloro- or fluoro- carbon propellants.
- Asbestos or any metals or alloys containing beryllium, chromium, cobalt, arsenic, selenium, cadmium, mercury, lead, or any radioactive wastes.
- Any electrical or electronic lamps or components that contain any of the above metals/alloys (including fluorescent, high-pressure sodium, mercury vapor and metal halide lamps).
- Any plastics or other materials containing chlorine as an essential component (such as Polyvinyl Chloride - PVC pipe). However, empty containers containing salt residue may be burned (salt is any metal chloride used for thawing or ion exchange).
- Tires.

- Treated wood containing compounds such as creosote, naphthalene, or tar.

WHO NEEDS WRITTEN APPROVAL?

Certain types of open burning require written approval from the DEC prior to the incident. These include:

1. Controlled Burning For Land Clearing:

Open burning of woody debris material by farmers and developers requires written DEC approval if the intent is to clear and burn 40 acres or more per year. DEC will, in its discretion, require public notice. Open burning should be done, as rapidly and safely as other considerations permit, to develop maximum heat energy per unit time and vent the smoke to the highest elevation possible. The burn material should be as dry as possible to create a high heat energy, less smoke, and a more efficient burn.

2. Controlled Burning For Resource Management (Prescribed Burning):

Prescribed burning, intentionally set fires to burn off ground and forest cover is usually, but not always, done by land management agencies. Prescribed burning is subject to obtaining written DEC approval if the intent is to clear 40 acres or more in a year. DEC will, in its discretion, require public notice.

Since prescribed burning is the burning of ground cover, the normal requirements of "maximum combustion efficiency" do not completely apply. Land Management Agencies, when conducting prescribed burning, shall follow the Alaska Smoke Management Plan.

3. Fire Fighter Training:

Fire fighter training using structures or fuels must be conducted pursuant to 18 AAC 50.065(b), (h), and (i) and requires written DEC approval. Public notification is required unless DEC issues a written waiver for burns conducted in remote areas, where the news media is not generally available, or where no public will be affected.

A fire service may ignite and conduct training on only one main structure and its associated smaller structures at a time; examples of associated smaller structures are garages, sheds, and other outbuildings within close proximity to the main structure. Structures must be inspected for hazardous wastes and other nonburnables prior to ignition. Materials listed on the "**MATERIALS THAT CANNOT BE OPEN BURNED**" list (page 9 of this Guidance) are to be removed from the structure prior to ignition.

A fire service may open burn up to 250 gallons of uncontaminated fuel daily and up to 600 gallons yearly for fire fighter training without prior DEC approval, provided that the fire service give public notice of the event before burning more than 20 gallons of fuel and responds to complaints in accord with 18 AAC 50.365(j) and (k) respectively.

Fire fighter training shall be conducted pursuant to 18 AAC 50.065(b) and (h) and is subject to written DEC approval. Public notification is required according to 18 AAC 50.065(j).

4. Burning Materials that Produce Black Smoke:

Open burning of petroleum-based materials, asphalt, rubber products, or other materials in a way that give off black smoke is subject to obtaining written DEC approval. In addition, DEC will, in its discretion, require public notice.

Open burning should be done using reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated.

Open burning of oil or gas well flow tests must conform to 18 AAC 50.065(b)(1) and the guidance contained in the *In situ Burning Guidelines for Alaska*. DEC intends to eliminate open burning of liquid hydrocarbons because alternative measures are generally available. If alternatives become unusable because of equipment breakdown or inclement weather, such events do not constitute the non-availability of alternatives.

OPEN BURNING PROHIBITION:

Open burning can be prohibited on an area-by-area basis if DEC issues an air quality advisory covering the area of concern. This advisory can be for a maximum of twenty-four hours but may be renewed daily. The advisory will be based on an assessment that inadequate air ventilation is available which would inhibit the dispersal of pollutants, such as inversions and low wind speeds.

BURN PLAN APPROVAL GUIDELINES

APPROVAL ISSUANCE:

Volume II, Section III-F of the Alaska Air Quality Control Plan incorporated by reference under 18 AAC 50.030 lists the requirements for obtaining approval to open burn. DEC has up to 30 days to issue an approval. Written approval is not automatic but must be evaluated for conformance with the following guidelines.

A contingency plan should be prepared in case of unforeseen changes in weather or other uncontrollable parameters that would affect your burn and the resultant smoke. Persons with approval must curtail their fire if air in the area is becoming overloaded or local weather factors would create smoke problems, even though no other restrictions have been imposed (i.e. wind moving directly into sensitive areas, inversions, etc.).

If any safety hazard is present, you must extinguish the fire as soon as possible. You will be held legally responsible for any accident or adverse health effects that occur because of your open burn.

The guidelines of a burn plan should include the following:

1. Indicate the location, duration, and inclusive dates considered for the burn:

Indicate the type and quantity of material, the condition, and the expected duration of both single events and the entire burning project. Changes or additional information for the burn plan can be discussed at the time of DEC notification by phone.

2. Identify the location of all sensitive features that might be impacted by smoke:

The applicant should list all population centers, including airports, medical facilities, schools (in session), and numbered Alaska highways, that are within an appropriate radius of the project. The “appropriate radius” should include an adequate margin of safety to include all potentially impacted sensitive populations and activities.

3. Indicate how the public will be informed prior to, during, and after the burning:

A successful burn is one in which no complaints are received. The best way to do this is to make sure everyone around you knows when the burn will occur so that they can take steps to either avoid the smoke or tolerate it. Your direct contact phone number should be publicized so that public can contact you if need be. In the case of fire training, notify the public through news media.

4. Indicate how you will coordinate with other concerned agencies, including authorities of sensitive features:

Indicate how you will notify all concerned agencies, including authorities in control of sensitive features identified in Item 2 (such as the FAA, State Troopers, military, fire department, adjacent land managers, etc.) who are potentially affected by visibility or adverse smoke impacts prior to ignition. Indicate if you obtained a permit and notified the Forestry Division of the Department of Natural Resources.

5. Indicate where the weather forecasts will be obtained and how it will be used to prevent smoke impacts:

Identify how the weather forecast will be obtained during the open burn. Parameters that should be obtained are the predicted visibility, wind direction, and wind speed.

6. Indicate how weather changes will be monitored and what will be done to reduce or mitigate smoke impacts if unfavorable weather should occur after ignition:

Indicate how the weather forecast will be monitored throughout the open burn. Identify what you do if a wind shift or other weather change begins to create an adverse smoke impact on sensitive feature identified in Item 2. For example, if you expect an inversion to occur during the night, you would put the fire out at the end of the day. If any safety hazard is present or if requested by the authority of a sensitive feature, you must extinguish the fire as soon as possible.

7. Indicate what will be done to predicted smoke dispersion:

Indicate how you will predict smoke dispersion. If a recommended method (smoke bomb, test fire, etc.) fails to indicate that acceptable smoke dispersion will occur, no fires will be ignited. “Unacceptable smoke dispersion” is defined as an unacceptable decrease in air quality for any sensitive feature identified in Item 2.

8. Indicate what will be done to enhance the active fire phase and reduce the smoldering phase:

Indicate what will be done to enhance the active fire phase and reduce smoldering. For example, material should be stacked in order to enhance oxygen flow to the flames.

For land clearing, indicate if you will conform to the following: berm piles should contain less than five percent of non-combustibles (soil, ice or snow); be readily extinguishable by the applicant within two hours; be loosely stacked to allow for natural draft; be cured for at least one year prior to ignition; and be no longer than 1000 feet without a firebreak.

9. Indicate how sensitive features will be contacted if visibility decreases:

Authorities having control over sensitive features identified in Item 2 will be notified if visibility is expected to be decreased to less than three miles for greater than 30 consecutive minutes and/or 180 minutes during a 24-hour period. Indicate how you will notify authorities of sensitive features if this occurs. If any safety hazard is present or if requested by the authority of a sensitive feature, you must extinguish the fire as soon as possible.

10. Identify alternative disposal options for material being open burned:

For fires other than fire fighter training, evaluate alternatives to open burning must demonstrate that open burning is the only feasible alternative. Identify if you looked into other options of disposal, such as marketing timber with a lumber company.

11. Indicate how you will coordinate with air quality authorities having jurisdiction:

Indicate that you will notify DEC by telephone at least 24 hours prior to ignition Monday thru Friday between 8:00 AM and 4:30 PM excluding State holidays: (907) 269 7577 (Anchorage Administrative Clerk), (907) 451-5173 (Fairbanks Administrative Clerk), or (907) 456-5100 (Juneau Administrative Clerk). Identify your name, location of burn, contact phone number, what your test burn was like, how long you expect the active fire phase and the smoldering phase to last, and what kind of notification procedures you have done.

HOW TO OBTAIN OPEN BURNING APPROVAL:

The applicant shall submit an application for the proposed open burning, which addresses each of the eleven concerns specified above. Application forms are available from DEC, or at <http://www.state.ak.us/dec/air/ap/applic.htm>.

Please note that there are fees for open burning approvals. With each open burn application, the applicant shall submit a \$200 retainer payable to the State of Alaska, DEC. The cost of the approval will be \$200 unless DEC determines that there may be smoke incursion into a public place, into an airport, into a Class I area, into a non-attainment area for CO or PM-10, or into a maintenance area for CO or PM-10. If DEC determines there may be smoke incursion, then DEC will notify the applicant that DEC will charge an hourly administrative fee and direct costs for approval processing and administration. DEC will prepare and send a monthly invoice itemizing fees and direct costs to the applicant.

Open burning in compliance with these guidelines or with the approval conditions does not exempt any person from any civil or criminal liability for consequences or damages resulting from such burning, nor does it exempt any person from complying with any other applicable law, ordinance, regulation, rule, permit, order, or decrees of this or any other governmental entity having jurisdiction.

For Open Burning Questions Contact:

Interior Alaska:

Robin Wagner (907) 451-2114

South Central Alaska:

Chris Kent, (907) 269-6847

Southeast Alaska & Aleutians:

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