Response To Wood Burning Complaints In Connecticut

Guidance to support local health directors in their effort to address local nuisance complaints stemming from wood burning.



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This narrative was compiled in a collaborative effort on the part of multiple agencies/organizations and municipal contributors:

Connecticut Association of Directors of Health

Jennifer Kertanis, Executive Director

Connecticut Department of Consumer Protection

Bob Nakano, Supervising Special Investigator

Connecticut Department of Environmental Protection, Bureau of Air Management,

Robert Girard Assistant Director

Keith Hill, Supervising Environmental Analyst

Timothy Marsh, Supervising Compliance Specialist

Elizabeth McAuliffe, Environmental Analyst III

Connecticut Department of Public Health

Suzanne Blancaflor, Chief, Environmental Health Section

Brian Toal, Supervisor, Environmental and Occupational Health Assessment

Connecticut Environmental Health Association

Scott Cook, Sanitarian, Southington Health Department

John Deckert, Chief Sanitarian, Glastonbury Health Department

Division of Criminal Justice, Office of the Chief State's Attorney

Judith R. Dicine, Supervisory Assistant State's Attorney – Housing Matters

Farmington Valley Health District & Connecticut Association of Directors of Health, Inc.

Rick Matheny, Director of Health

Preamble

Wood burning may emit large quantities of air pollutants including nitrogen oxides, carbon monoxide, organic gas and particulates, all of which can cause adverse health effects. State and local agencies receive complaints regarding wood smoke emissions and associated health implications. Investigation and resolution of these issues can be complicated.

First, many government agencies and officials have different roles in regulating wood burning, depending on the source. These agencies and officials include the; local fire marshal, local open burning official, local building inspector, local zoning officer, local health director, state building official, Department of Public Health, Department of Environmental Protection, and the Department of Consumer Protection. Effective response to wood smoke complaints requires a general awareness of the different roles, responsibilities and authorities of each of the involved agencies and officials.

Second, the determination of a public health nuisance can be challenging. The professional judgment of the local health director plays a significant role in determining whether or not corrective action is warranted. Capturing the factual pattern at the time of the complaint may lead the local health director to determine that the complaint is not going to be followed up on. Not every complaint warrants an inspection. Assuming that the complaint is reasonable, and the facts can be pursued, the following guidance on *Recording a Complaint, Conducting an Inspection, Legal Options/Enforcement*, and associated sample forms, are being provided to local health departments to support their efforts in investigating wood smoke complaints and supporting resolution necessary to protect public health.

Recording a Complaint

Wood smoke complaints may arise from any number of wood burning devices including fireplaces, wood burning stoves, outdoor wood burning furnaces (OWFs), chimineas, open fire pits and charcoal grills. Once a complaint is received by the local health director, gathering as much information as possible from the complainant will begin to inform the most appropriate first steps in the follow-up investigation. (The Complaint Form found in Appendix A, or other form regularly used by your department, may be used to record a complaint). In addition to basic information regarding the time and day of the call, the name and address of the complainant and address where the smoke is emanating from, additional information regarding the specifics of the complaint should also be documented. The source of the wood smoke, severity of the odor, existence of visible emissions, and frequency of the problem should all be captured as part of the complaint. It is important to record the times of day and days of the week when the nuisance odors or smoke tend to be occurring. The complainant should also be asked to describe how the wood smoke is impacting them in their yard and indoors. Any reported health effects or sensory reactions should also be documented. Depending on the source of the wood smoke, referral to another agency may be the appropriate next step in order to ascertain compliance of the source with pertinent regulations. Outdoor wood burning furnaces and open burning are handled a little differently than other sources of wood smoke and those will be addressed first.

Who Should Respond to the Initial Complaint?

Listed below are some recommendations to which to refer certain types of smoke complaints and when local health departments may be the most appropriate first responder (*For a list of contacts sorted by wood smoke related topics refer to the table at the end of this document.*):

Outdoor Wood Burning Furnace

An OWF is essentially a wood-fired boiler in a small, insulated shed with a smoke stack. Generally, OWFs provide remote heat to a residence or are used to heat a swimming pool. OWF complaints should be referred to the Connecticut Department of Environmental Protection (DEP) Bureau of Air Management at dep.aircomplaints@ct.gov or (860) 424-3436, as the first responder. OWFs are regulated by the DEP under the Connecticut General Statutes (CGS) 22a-174k and various sections of the Regulations of Connecticut State Agencies. The DEP may ask for your help further along in their investigation especially if there is a potential public health nuisance associated with the operation of the OWF.

Open Burning

Open burning is the burning of any matter, where smoke and other emissions are released directly into the ambient air without passing through an adequate stack or flue. Typically, open burning involves the burning of brush; but a barrel burn, a grill burning wood, a chiminea, or a campfire are also considered open burning. If it is open burning, generally, these complaints can be referred to the local open burning official or fire marshal. The local open burning official nominated by the chief elected official of the municipality must be certified by the Commissioner of DEP prior to issuing open burning permits in accordance with the requirements of Section 22a-174(f) of the CGS. However, municipalities have the discretion to choose the town officer or employee best able to fulfill the separate and distinct enforcement role for the open burning statutes, given each town's own ordinances and charters.

Fireplaces and Wood Stoves

Public health complaints relating to smoke from wood stoves and fireplaces are most appropriately investigated by local health departments.

Commercial Sources

Other nonresidential locations such as restaurants and industrial sources should be referred to the Connecticut Department of Environmental Protection (DEP) Bureau of Air Management at dep.aircomplaints@ct.gov or (860) 424-3436.

Other possible Referrals

In the event that an unlicensed contractor has installed a fuel burning unit, the contractor should be referred to the Department of Consumer Protection. If the owner of the fuel burning unit did not obtain a building permit for the associated plumbing and electrical work, a referral should be made to the local and state building officials.

Conducting An Inspection

When conducting an inspection based upon a complaint of wood burning odors and/or smoke, contact the complainant immediately before and immediately after the inspection, when possible. The following provides specific guidance on the types of information that should be captured as part of the investigation and site visit.

Complaint Visit

Prior to the site visit, efforts should be made to contact the complainant to gather any additional information not captured as part of the original complaint (the form attached to this guidance may be used to record this information). Ask the complainant to describe how the neighbor's activity is impacting them in their yard and indoors. Does the smoke and odor come through open windows and doors? Is it coming into the dwelling even when it is closed up? Have control measures been used such as closing and taping windows, purchasing an air conditioning unit? Are there health effects or sensory reactions? What are the health effects and have they been documented by a physician? How bad are the odors? Can they see the smoke? Do they have a concern about the environmental impact? Contact is made again to inform the complainant of the results of the inspection/investigation of the alleged source(s).

Off Site Investigation

Before visiting the location of the alleged wood burning, the surrounding neighborhood should be investigated. It is important to identify and/or eliminate other variables that may be contributing to the complaint, and to isolate the correct location of the wood smoke source(s). Note wind direction, wind speed, ambient temperature, and weather conditions in your report. Before going into the alleged source, check upwind and downwind of the source for smoke and odors as well as in the general area near the complainant. Note whether or not there are nuisance level odors, and amount of the smoke detected. Go upwind of source and verify that the nuisance odor/smoke is not detected upwind. Document in the report the upwind location where the odor/smoke is not detected. Document the nearest upwind source, its approximate distance from the alleged source, and from complainant's location. Note other potential sources and determine if they are part of the alleged problem. Documentation must support that other sources are not part of the issue at hand. Note the direction of the sun during your inspection. Keep the sun at your back as much as possible when observing visible smoke.

In the downwind location, if an odor/smoke is detected; document your location, time, duration, and a description of the odor/smoke. For smoke, describe the color of smoke, the amount of smoke observed, and for how many minutes it is observed. Indicate if the smoke

was drifting across the property line at/or near ground level. For an odor, describe intensity (extremely strong, very strong, strong, moderately strong, mild), characteristics (what it smells like), frequency (how often) and duration (how many minutes). Indicate if the odor and/or smoke are deemed a nuisance (see description of a nuisance in the legal options section).

On Site Investigation

Stop in at the alleged source and notify them of the investigation of a complaint of alleged odor or smoke emanating from a wood burning unit. Ask the occupant of the residence with the alleged source for permission to see the wood burning unit and document any equipment that is operating. If the owner does not consent, the inspector should seek a search warrant, and secure it before entry is made. For more information on entry see the legal options section.

Find out the date of installation, contractor's name and license number, municipal building permit number, and age of the unit. If the offending unit is a wood stove find out if it is an EPA Document what type of unit it is, primary fuel and starter fuel (kindling, newspaper, lighter fluid) used by the source. Because the type of fuel could be the source of the complaint, look for evidence of all fuels that may be burned in the unit. Noxious odors and heavy smoke can result from burning household refuse, so verify refuse removal method and ask for names of contractor if the resident uses a service. Proximity to neighbors and land formations can play a role in the complaint, so document the height of the stack, distance to nearest property line, distance to nearest residences not served by the unit, and topography of the area. Rather than estimate, document accurate measurement where possible with a compass, Beaufort Wind Force Scale (see Attachment D), tape measure and online aerial views. Document other wood burning units in the area. Take pictures of unit and in the vicinity of the unit. Explain that only dry, well seasoned, nonprocessed wood should be used to fuel the unit and that there is no start up or shut down exemption. Find out the time of day and days when they are likely to burn. Explain that weather conditions and inversions need to be considered when deciding whether a fire may cause a nuisance for a neighbor. Many issues can be resolved if the neighbors objectively look for a solution, compromise on operating hours, and resolve to use good operating practices. See EPA's burn wise tip sheet that can be handed out http://www.epa.gov/burnwise/pdfs/BurnWiseTips.pdf

No matter what the investigation yields, it is important to remain in contact with the complainant. Keeping the complainant informed will help answer any other concerns they may be having and eliminate any confusion on their part about current status of the investigation.

Legal Options: ENFORCEMENT

Enforcement by local director of health

From the start, all local health directors should know they have clear legal authority to enforce a wood smoke complaint when it constitutes a public health nuisance. A "public health nuisance" is a nuisance which has such intensity, characteristics, frequency and duration that: (A) It is, or can reasonably be expected to be, injurious to the public health or welfare; or (B) It unreasonably interferes with the enjoyment of life or the use of property, considering the character and degree of injury to, or interference with, the health, general welfare, property, or use of property of the people affected, and the location of the pollution source and character of the area or neighborhood affected. A "public health nuisance" includes a residential smoke condition caused by the use of an outdoor wood burning furnace, wood burning stove, fireplace, chiminea or other wood burning device, which uses the director, has determined constitutes a nuisance that may endanger the health of the inhabitants. Whether the source of the emissions was present in the location first shall not be a consideration. Although wood smoke is not specifically referenced in the CT Public Health Code Section 19-13-B1 as a nuisance, that list is not exclusive. It is read in the context of other relevant statutes and regulations. As set forth below, CGS section 19a-206 requires that the directors of health examine and cause abatement of all nuisances injurious to the public health.

Freedom of Information and confidentiality of the complainant:

Typical wood smoke complaints are initiated by an inhabitant of a property neighboring the wood burning source, who is being adversely affected by the wood smoke. Such a complaint may be responded to by the director of health or the director's authorized agent to determine if a public health nuisance exists. A record of the complaint, the investigation and the enforcement that follows should be made and kept by local health. Whether that same record is subject to public disclosure is a question answered by CT laws contained within the Freedom of Information Act, CGS section 1-200, et seq. For purposes of CT FOI law, local health is a "public agency" generally subject to disclosure of records. However, it is important to note that CT FOI laws exempt certain local health records from disclosure. CGS Sections 1-210 (b) (16), exempts from disclosure in relevant part:

CGS 1-210(b)(16) Records of complaints, including information compiled in the investigation thereof, brought to a municipal health authority pursuant to chapter 368e or a district department of health pursuant to chapter 368f, until such time as the investigation is concluded or thirty days from the date of receipt of the complaint, whichever occurs first;

It has previously been decided that the issuance of a legal order to abate marks the conclusion of the local health investigation. However, the complainant often expresses a desire to *keep* their identity confidential out of fear of threat or intimidation by the wood smoke site owner. On this particular issue, the State Freedom of Information has repeatedly concluded that the complainant's identity is permissively exempt from disclosure. In doing so, the CT FOI Commission has determined that local health is a "law enforcement agency" for purposes of CGS 1-210(b)(3) and that the identity of the requested complaining person constitutes "that of an informant not otherwise known." In relevant part, CGS 1-210(b)(3) exempts from disclosure:

CGS 1-210(b)(3) Records of law enforcement agencies not otherwise available to the public which records were compiled in connection with the detection or investigation of crime, if the disclosure of said records would not be in the public interest because it would result in the disclosure of (A) the identity of informants not otherwise known or the identity of witnesses not otherwise known whose safety would be endangered or who would be subject to threat or intimidation if their identity was made known;

Therefore a complainant's identity in the records of local health is not subject to disclosure under CT FOI at any time where the disclosure would subject the complainant/informant to threat or intimidation if their identity were made known. See CT Freedom of Information Commission, Final Decisions, Docket #s FIC 1991-125, 1996-086; 199-144 and 2009-094.

Necessity of proof of a public health nuisance

It is well decided that the director of health may only issue an order to abate a nuisance which endangers the public health. However proof of a health injury to an inhabitant is not required for the director to have grounds to issue an order to abate a wood smoke health nuisance. Courts in CT and further have upheld the use of the health director's authority in broad measure when protecting the public health. In the case of State v. Cooney, 1 Conn.Cir.Ct. 530, 24 Conn.Supp. 242, 189 A.2d 511 (1962), the court held that the purpose of the nuisance statute is to authorize the director of health to examine and cause the abatement of any nuisance which may endanger the public health.

The local director of health does need to document the local health nuisance investigation and findings as part of the case file. Most importantly, documenting the initial inspection will support the legal basis for the director of health's issuance of the order to abate the wood smoke as a public health nuisance. And, documenting the final inspection after the order has expired will support the legal basis for civil or criminal enforcement for violation of the order

to abate, pursuant to CGS 19a-206. Since wood smoke frequency is an issue to the severity of the nuisance, each inspection where the complaint is verified should be noted in the case file with specific dates and findings. This should be the approach to every case, as any case may end up challenged in a court of law. Pictures, whether digital or 35 mm, video, field notes, and inspector or complainant- recorded observations, including inspector's sensory perceptions, such as the smell of bad smoke odors inside the neighboring property, are all helpful to later prove the existence of a public health nuisance condition.

Keep in mind that evidence of an alleged public health nuisance is only admissible in court if it was lawfully obtained by local health. In that regard, if the alleged wood smoke nuisance is operating on private property, particularly a single family home, the owner may have a right of privacy. Therefore as a general rule, consent must be sought to conduct a private property inspection. If the owner does not consent, the inspector should seek a search warrant, and secure it before entry is made, or before any special testing is conducted; except as in the case of a public health emergency, wherein entry and action may be made by the director as necessary to protect the public health. In the alternative, the inspector may legally document by photos, etc., everything that can be seen in plain view, even with a binocular or other magnifying device, from a consenting neighbor's property or a public way.

Once it has been determined that a nuisance smoke complaint has been detected, the local health director has two options for notifying the responsible party that a violation exists; a letter indicating a public health complaint, or the issuance of an Order to Abate.

Issuance of a letter indicating a public health complaint by a local director of health

If the local director of health desires, a letter notifying an owner or occupant of an alleged wood smoke complaint may be issued prior to a formal order to abate, in an attempt to gain compliance by cooperation before formal process. A suggested form for such a letter is provided as Attachment B. Provided the nuisance smoke has not created an imminent health hazard, a local director of health may send or deliver such a letter to the responsible party. The letter should cite the violation and provide a timeframe for correcting the problem. Local health directors should be careful not to rely solely on this type of letter unless the recipient responds promptly and in full cooperation, by abatement of the complaint as needed. If this letter is not successful in protecting the public health under the circumstances, the local director of health should promptly send a formal order.

Issuance of an Order to Abate by a local director of health

Enforcement by a municipal or district health director of a wood smoke nuisance is pursuant to CT General Statute, and CT Public Health Code, which state in relevant parts:

CGS Sec. 19a-206. Duties of municipal directors of health. Nuisances and sources of filth.

(a) Town, city and borough directors of health or their authorized agents shall, within their respective jurisdictions, examine all nuisances and sources of filth injurious to the public health, cause such nuisances to be abated or remediated and cause to be removed all filth which in their judgment may endanger the health of the inhabitants.

CPHC Section 19-13-B2. Abatement of nuisance.

- (a) Any local director of health, upon information of the existence of a nuisance or any pollution occurring within his jurisdiction, or when any such nuisance or pollution comes to his attention, shall, within a reasonable time, investigate and, upon finding such nuisance or pollution exists, shall issue his order in writing for the abatement of the same.
- (b) Such order shall specify the nature of such nuisance or pollution and shall designate the time within which such abatement or discontinuance shall be accomplished; and if such order is not complied with within the time specified, the facts shall be submitted to the prosecuting authority. Copies of all orders shall be kept on file by the director of health in his office and copies of the same shall be furnished the state commissioner of health on request.

General instruction on how to issue an abatement order and related enforcement topics are covered under a separate document available through the Department of Public Health, entitled "How to Get the Job Done", written by CT Supervisory Assistant State's Attorney for Housing, Judith R. Dicine. Orders of the director of health should be done on the form prescribed by the Department of Public Health, as it contains necessary language, including regarding the right of appeal pursuant to CGS 19a-229. It is important to note that the order form must be amended to cite sections CGS 19a-206 and CPHC 19-13-B2 so it pertains to the particular alleged wood smoke nuisance, and must contain a specific time frame for abatement of the nuisance, commencing from receipt of the order. CT Public Health Code Section 19-13-B2 requires further that the directors of health investigate and order the abatement of any public health nuisance; and if the order is not complied with in the time specified, to refer the facts to the prosecuting authority.

The time frame and method of abatement may be set as the director of health deems appropriate, which must be analyzed on a case by case basis. The degree of violation, in addition to the affect it has or may have on the inhabitants, should be the considerations when the director chooses a method and time frame for abatement. The local director of health may issue an abatement order which requires anything from a minor furnace cleaning or operational change to a complete cessation of use of the existing equipment. A legal order of a director of health is one which contains neither more nor less than deemed reasonably necessary to abate the public health nuisance. Once the order is issued, and unless revised, it can only be enforced when the time provided in the order has expired. State v. Drexel, 148 Conn. 439, 171 A.2d 398 (1961). Therefore, directors of health should give careful consideration to how much time they give an owner or occupant to abate a wood smoke nuisance, as it must be adequate for the protection of the public health.

Decisions of the CT State Department of Public Health have dealt supportingly of local health with respect to orders to abate a wood smoke nuisance. In the case of Joshua Eddinger v. Middletown Health Department, State of CT Department of Public Health - Docket No. 10119EH (2010), local health was found to be within its authority to order the cessation of the operation of the outdoor wood burning furnace on the property, stating "the goal is to eliminate the smoke that is threatening the public health." In the case of Sally Huyser v. Trumbull Monroe Health District, State of CT Department of Public Health, Docket No. 080422EH (2009), an order of cessation was found appropriate even when the wood burning stove was the primary source of heat. In Huyser, the Commissioner of Public Health held that the "Appellant is not entitled, as a matter of law, to maintain a nuisance; there are other forms of heat that appellant can install that would not create a nuisance or filth that adversely impacts on the health of her neighbors." In John Tallman v. County of Chautauqua, 2007 WL 4278825 (W.D.N.Y.), the court held that there was no statute or regulation which entitles someone to heat his home with wood as a property right. Without such an entitlement, plaintiff cannot claim a denial of due process, in the order to extinguish a wood burning boiler, especially when its use constitutes maintaining a public nuisance.

In the event that the local director of health needs to order the cessation of a wood stove or outdoor wood burning furnace which is the sole or necessary source of heat for an occupied structure, a safe alternative source of heat should be put into place as soon as possible. Temporary alternative heating sources may be reviewed by the local building official. Caution should be observed to restrict the use of unsafe temporary heating such as kerosene heaters, which use is illegal pursuant to CGS 29-318. Permanent alternative heating sources will require a permit and licensed contractor for any new installations. If the structure cannot be safely occupied due to lack of an essential service necessary at the time, relocation of the occupant may be mandated pursuant to the CT Uniform Relocation Act, (see CGS Chapter 135). If the unit is a rental property, the landlord may be responsible for relocation of the affected

occupants pursuant to CGS Title 47a. Finally, if the property is a tenement, boarding or rooming house, the local health director may choose to remedy the problem by executing the order and liening the costs pursuant to CGS 47a-55, as amended in 2010.

Enforcement by CT Department of Environmental Protection

The Department of Environmental Protection regulates outdoor wood burning furnaces pursuant to CGS 22a-174k. Complaints regarding smoke from an outdoor wood burning furnace should therefore be referred to the DEP. This pertains to both commercial and residential property. CT DEP generally handles all commercial air quality complaints. But despite DEP's statutory authority on all wood burning air quality issues, the local health director may have a complaint of nuisance smoke affecting a neighboring property, which as discussed above, requires an investigation by local health. So which is it? When does DEP get the complaint as opposed to local health? The answer is both may properly have the complaint, as was clarified in the above referenced 2010 decision_of the CT Commissioner of Public Health in Joshua Eddinger v. Middletown Health Department:

"The threshold for Local Health to find a violation of the Public Health Code is significantly different than for DEP to find a violation of *its* regulations. DEP has jurisdiction to regulate air pollution, while Local Health has jurisdiction to protect the public health and safety. As such, DEP may find that smoke produced by a wood burning stove complies with its regulations and does not constitute air pollution, whereas Local Health may find that the same stove constitutes a threat to the public health in violation of the Public Health Code, based on toxins in the smoke causing adverse health consequences in the population in proximity to the stove."

Enforcement by local building official and CT Department of Consumer Protection

The director of health should be aware that the installations of an outdoor wood burning furnace or an indoor wood stove require the issuance of a building permit by the local building official prior to installation. And except in the case of an-owner occupied single family home owner, it also requires a valid plumbing and heating license from the Department of Consumer Protection. Enforcement of these issues rests with those two departments, but should be supported by the director of health. Any violation of these provisions should be referred promptly by the local director of health to the related department for follow-up. Keep in mind that the issuance of a building permit does not waive the director of health's authority to protect the public health. In cases where permits or licenses were duly issued for the installation, the director of health may yet have an actionable public health nuisance based on the wood smoke emitted from an otherwise lawfully installed wood burning stove or furnace.

Since the goal of CT health and safety code enforcement officials uniformly is to protect the public through the proper enforcement of the various state codes, responding to complaints for wood smoke nuisances should be a cooperative effort of all related departments. The public is best served when related enforcement agencies present a clear and consistent response to shared issues.

Enforcement - Legal Advice

Finally, this document is offered as general guidance only. Local health directors should consult their municipal or district health department attorney for any specific legal advice on public health nuisance enforcement. The local health director may also consult with the prosecuting attorney assigned to handle housing matters for the local State' Attorney's Office.

Long Term Monitoring and Closure

Certain cases will only be resolved with multiple inspections occurring over the course of several months. Sometimes it is difficult to ascertain that the smoke is indeed causing a nuisance, although the circumstantial fact pattern would lead one to predict that a nuisance is more likely than not. In these cases it is important for the local health director to establish an office protocol concerning how many visits are reasonable. Once the case has been escalated to enforcement, inspections may continue until full compliance or substantial compliance is achieved and documented. A written report documenting investigation finding and actions taken to resolve the issue should also be followed by a letter of closure to all parties. In the event that a violation has not been found and it is the opinion of their local health official that resources should no longer be diverted from other higher priority projects, please review the following paragraph concerning termination of a pattern of repeated inspection.

Termination of a Pattern of Repeated Inspection

It is important for the local health director to consider the frequency of dispatching staff to one location repeatedly when observation does not result in the documentation of a public health nuisance. Being responsive to public complaints is a function of government that leads to observation, documentation, identification of issues, strategy for resolution and in some instances conclusion that there is not an issue that rises to the level of being a violation. Mediating a resolution is part of the approach, getting neighbors to compromise and communicate with one another will solve a majority of the wood burning complaints. All effort should be made to determine what time of day and what day of the week the violation or problem is most acute. This information will come from the complainant and from observation of patterns of activity at the residence where the smoke/odor is emanating from. When there have been several attempts to observe a violation or problem without success on the part of staff, then the local health department should document in writing that they recommend no further inspections concerning this issue unless there is a change in the fact pattern that warrants a renewed pattern of inspection. This is necessary in order to prevent resources from being diverted from higher priority cases.

State Marshall Service

Following the inspection, communication with the resident operator of the offending unit is important to resolving the alleged violation. Sometimes circumstances have escalated and the resident with the wood burning unit is not open to receiving feedback. In the event that the local health director has a document that needs to be served and traditional mailing is not thought to be effective in this case the following is the procedure for State Marshall Service:

- 1. Determine justification for using State Marshall. No recent contact, Certified mail refused or unclaimed, etc.
- 2. Review with Management.
- 3. Determine name of State Marshall.
 - a. Use the Judicial Web Page http://www.jud.state.ct.us/fag/marshals.htm
 - b. Determine the county the town is located in by either a Map or wikipedia web page.
 - c. Determine the State Marshall closest to the town desired.
 - d. Call the State Marshall to verify name and address.
- 4. Draft cover letter to State Marshall.
- 5. Make two copies of what will be served.
- 6. Get signatures and have clerical mail out package.
- 7. Fees are based on state statutes.
- 8. Have invoice sent to your business office.
- 9. Return of service will be mailed back to staff with a copy of what was served.

Terms

Beaufort Wind Force Scale – Developed in 1805 by Sir Francis Beaufort is based upon an empirical formula for measuring wind speed from calm light breezes to hurricane strength. http://www.unc.edu/~rowlett/units/scales/beaufort.html

Chiminea - A chimenea (also spelled chiminea) is a freestanding front-loading fireplace or oven with a bulbous body and usually a vertical smoke vent or chimney. en.wikipedia.org/wiki/Chimenea

Downwind - with the wind; in the direction the wind is blowing; "they flew downwind", towards the side away from the wind. wordnetweb.princeton.edu/perl/webwn

Inversion - In meteorology, an inversion is a deviation from the normal change of an atmospheric property with altitude. It almost always refers to a temperature inversion, i.e., an increase in temperature with height, or to the layer (inversion layer) within which such an increase occurs. en.wikipedia.org/wiki/Inversion (meteorology)

Online Aerial Views – Aerial photographs of natural and manmade features. http://magic.lib.uconn.edu/

Open burning - "Open burning" means the burning of any matter in such a manner that the products of combustion resulting from the burning are emitted directly into the ambient air without passing through a stack or flue. Regulations of Connecticut State Agencies 22a-174-1 (81)

Upwind - leeward: toward the wind; "they were sailing leeward", in the direction opposite to the direction the wind is blowing; "they flew upwind", towards the side exposed to wind. wordnetweb.princeton.edu/perl/webwn

Contacts by Wood Smoke Topic

| Wood Smoke Related Topic | Primary Contact |
|---|--|
| Residential complaint public health nuisance | Local Health Director |
| associated with wood smoke | |
| Outdoor Wood Burning Furnace (OWF) | State of Connecticut |
| (Residential or Commercial facility) | Department of Environmental Protection (DEP) |
| | Bureau of Air Management |
| | dep.aircomplaints@ct.gov or (860) 424-3436 |
| Commercial facility - smoke complaint | State of Connecticut (DEP) |
| | Bureau of Air Management |
| | dep.aircomplaints@ct.gov or (860) 424-3436 |
| Open Burning Permit | Local Open Burning Official |
| Open Burning Enforcement (campfire, chiminea, or | Municipality or other local government will assign |
| brush/debris burn complaint) | (local open burning official, fire marshall, or other) |
| Service of orders | State of Connecticut Judicial Branch |
| | State Marshal Commission |
| | Administrative Offices |
| | 860-713-5372 |
| Plumbing & Heating license | State of Connecticut |
| (plumbing and pipefitting) | Department of Consumer Protection |
| | Occupational & Professional Licensing |
| | 860-713-6110 |
| Local safety ordinances and building code | Local Building Official |
| including necessary permits for construction or | Town Engineering Office |
| installation of heating device | |
| State safety and building code including | Department of Public Safety |
| construction or installation of heating device | Office of State Building Inspector |
| | 860-685-8310 |
| Public health code including nuisance and sources | Local Health Director |
| of filth | |
| Criminal Referral by local health department | Division of Criminal Justice |
| | Office of the Chief States Attorney- |
| | Housing Matters |
| Provides technical assistance to local health | State of Connecticut |
| department of health related topics. | Department of Public Health |
| | Environmental and Occupational Health |
| | Assessment |
| | 860-509-7293 |

Attachment A - Sample Wood Smoke Complaint & Inspection Form for Local Health Officials

COMPLAINT INFORMATION

| Does Comp | olainant wish to 1 | remain anonymous? | Y N | | | | |
|-------------------------------------|--------------------|---|----------------------|----------|------------|---------|-----------|
| If no, Comp | plainant's Name | : | | | | | |
| Street Addı | ·ess: | | | | | | |
| City: | | | State: | Zip | Code: _ | | |
| Phone num | ber: (H) | (W) | | (C) | | | |
| Name of A | lleged Source: _ | | | | | | |
| Street Add | ress: | | | | | | |
| City: | | | | | | | |
| Type of Ur | nit or Activity G | enerating Complaint: | | | | | |
| IRE PIT | CAMP FIRE | CHIMINEA | BARREL | | INSERT | WOODSTO | VE |
| IRE PLACE | OUTDOOR WO | OODBURNING FURNACE | BRUSH/DEBRIS | PILE | OTHER | | |
| (<i>Open burn</i> Is the unit a | ing is referred t | open burning? Y to local open burning od-burning Furnace? CT DEP) | official or local fi | re marsh | al) | | |
| | | INSPEC' | TION INFORMA | ATION | | | |
| pertine | nt information a | noth before and after to ing ainant is observing: | _ | - | _ | _ | rific and |
| | | | | | | | |
| | | | | | | | |
| Name of In | spector: | | | | | | |
| Date of Ins | pection:/ | / Arrival T | `ime: | Departu | re Time: _ | | |

Type of Unit or Activity Inspected:

| FIRE PIT | CAMP FIRE | CHIMINEA | BARREL | INSERT | WOODSTOVE | |
|------------|-------------|------------------|--------------|--------|-----------|--|
| FIRE PLACE | OUTDOOR WOO | DBURNING FURNACE | BRUSH/DEBRIS | OTHER | | |

| | Owner occupied: Y N Single Family: Y N |
|--------------|---|
| 2. | Self-installed: Y N (applicable to home heating and external heating units) |
| 3. | Is the unit the sole source of heat for the residence? Y N |
| 4. | How old is the unit? Is the unit EPA certified? Y N |
| 5. | Contractor: CT license #:(CGS 20-340t) |
| 6. | Date of Installation:(if OWF then CGS 22a-174k) |
| 7. | Municipal Building Permit #:(CGS 29-263) |
| 8. | Wind direction: Wind speed: Ambient temperature: |
| 9. | Weather conditions: |
| 10. | Upwind check for visible emissions and odor: Y N Emissions present: Y N Odor present: Y N |
| 11. | Downwind check for visible emissions and odor: Y N Emissions present: Y N Odor present: Y N |
| 12. | Are there visible emissions crossing the property line at or near ground level? Y N |
| 13 | Are there nuisance odors? Y N |
| | Inspected fuel source/wood pile: Y N Approved: Y N (The fuel should be clean, dry, well seasoned, nonprocessed wood that is at least six months old, protected from the elements, and stacked to breath.) |
| 15. | Where is the fuel located relative to the residence? (CGS 29-291c) |
| 16. | How is the fire started (circle): A. commercial starter fuel B. kindling C. newspaper D. other |
| 17. | Is there auxiliary heat for start up? Y N (Note: There is no nuisance exemption for start up, shutdown |
| (| or malfunction of the unit) |
| 18. | Refuse handling system (circle): A. municipal pick up B. paid contractor C. bring to transfer station D. |
| - | Burning refuse E. None (Request verification of refuse handling.) |
| 19. | Stack height of unit served: Distance to nearest property line: |
| 20.] | Pictures taken with sun at back of photographer? Y N (If yes, document and attach to report.) |
| Descril | be what was conveyed to the complainant post inspection. |
| | |

REPORT NARRATIVE:

| near ground level sure wind direct | e, number of minutes observed, and indicate if the smoke was crossing the property line a l. For an odor describe the location, intensity, characteristics, frequency and duration. M tion, wind speed, ambient temperature, and weather conditions are documented ab ther or not a corrective action plan is needed. |
|---------------------------------------|--|
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REMOTE OBSERVATION SKETCH (as needed):

| nit. Identify and | d label: height d | of stack of the u | • | v | rest residence no If general or unic | |
|-------------------|-------------------|-------------------|---|---|---|--|
| | | | | | | |

| REFERRAL B | UILDING OFFICIAL | CONSUMER P | ROTECTION F | IRE MARSHAL | - | | |
|-------------------------|------------------|------------|-------------|-------------|---|--|--|
| LOCAL OPEN BURN | | | | | | | |
| | | | | | | | |
| Signature of Inspector: | | | | | | | |
| Гitle: | | | | | | | |
| Date: | Date: | | | | | | |

Attachment B – Sample Letter Indicating a Public Health Complaint

| (LOCAL HEALTH DEPT./DISTRICT LETTER HEAD) |
|---|
| DATE: |
| ISSUED TO: |
| |
| |
| |
| Our department received a smoke nuisance complaint on An investigation was conducted on |
| and the following was discovered: |
| |
| |
| |
| LAW VIOLATION: |
| Upon receipt of this letter, you are requested to come into compliance withindays. |
| Failure to comply with this letter, will result in Orders being issued against you by the Director of Health. |
| Please contact our office at if you have any questions. |
| Your cooperation in this matter is appreciated. |
| |
| |
| Sincerely, |

Attachment C - Sample Order

| ISSUED TO: | | | |
|----------------------------|---|------------|---------------|
| | | | |
| | the existence of a public health law violation up | | or under your |
| charge, located at | | in the tov | vn of |
| | and described as follows | : | |
| | | | |
| | | _ | |
| | | | |
| LAW VIOLATIONS: | | | |
| | | | |
| | | | |
| | icut General Statutes Sections 19a-206, 19a-207 | | |
| PENALTY: Connectic | ut General Statutes Sections 19a-36, 19a-206 | | |
| | id violation be removed, abated or corrected as t | | |
| | | | |
| on or before | day of | 20 | |
| | , Director of Health | | |
| for(town, city, borough or | district) | | |

Attachment D –Beaufort Wind Force Scale

Source: http://www.spc.noaa.gov/faq/tornado/beaufort.html downloaded 11/12/2010

Developed in 1805 by Sir Francis Beaufort of England

| | Wind | WMO | Appearance of Win | d Effects |
|-------|----------------|--------------------|--|--|
| Force | (Knots) | Classification | On the Water | On Land |
| 0 | Less than 1 | Calm | Sea surface smooth and mirror-like | Calm, smoke rises vertically |
| 1 | 1-3 | Light Air | Scaly ripples, no foam crests | Smoke drift indicates wind direction, still wind vanes |
| 2 | 4-6 | Light Breeze | Small wavelets, crests glassy, no breaking | Wind felt on face, leaves rustle, vanes begin to move |
| 3 | 7-10 | Gentle Breeze | Large wavelets, crests begin to break, scattered whitecaps | Leaves and small twigs constantly moving, light flags extended |
| 4 | 11-16 | Moderate Breeze | Small waves 1-4 ft. becoming longer, numerous whitecaps | Dust, leaves, and loose paper lifted, small tree branches move |
| 5 | 17-21 | Fresh Breeze | Moderate waves 4-8 ft taking longer form, many whitecaps, some spray | Small trees in leaf begin to sway |
| 6 | 22-27 | Strong Breeze | Larger waves 8-13 ft, whitecaps common, more spray | Larger tree branches moving, whistling in wires |
| 7 | 28-33 | Near Gale | Sea heaps up, waves 13-20 ft, white foam streaks off breakers | Whole trees moving, resistance felt walking against wind |
| 8 | 34-40 | Gale | Moderately high (13-20 ft) waves of greater length, edges of crests begin to break into spindrift, foam blown in streaks | Whole trees in motion, resistance felt walking against wind |
| 9 | 41-47 | Strong Gale | High waves (20 ft), sea begins to roll, dense streaks of foam, spray may reduce visibility | Slight structural damage occurs, slate blows off roofs |
| 10 | 48-55 | Storm | Very high waves (20-30 ft) with overhanging crests, sea white with densely blown foam, heavy rolling, lowered visibility | Seldom experienced on land, trees broken or uprooted, "considerable structural damage" |
| 11 | 56-63 | Violent Storm | Exceptionally high (30-45 ft) waves, foam patches cover sea, visibility more reduced | |
| 12 | 64+ | Hurricane | Air filled with foam, waves over 45 ft, sea completely white with driving spray, visibility greatly reduced | |