

OPEN BURNING: ISSUES AND OPTIONS FOR REGULATION CHANGES

**A Discussion Paper Issued by the
Environmental Protection Division
and
Field Operations Division
of the
New Mexico Environment Department
December 3, 2002**

ii

EXECUTIVE SUMMARY

The purpose of this report is to present the results of the New Mexico Environment Department's internal analysis of issues and problems with the Department's air quality regulation on open burning (20.2.60 NMAC - Open Burning). This regulation applies statewide except for Albuquerque/Bernalillo County and tribal lands. The Department is considering proposing changes in this regulation to the New Mexico Environmental Improvement Board. This report is intended to stimulate discussion between the Department and all sectors of the public who may be affected by possible changes to the open burning regulation.

Open burning is burning which is conducted out of doors and is not enclosed in an incinerator. This includes burning of refuse in piles or backyard burn barrels, yard waste and weed burning, prescribed burning of forest and rangeland, and other types of outdoor burning. Open burning can produce large amounts of smoke and toxic air pollutants which are harmful to health.

The current rule, which has not been revised since 1971, sets up three different regulatory categories for burning: 1) unrestricted burning (including campfires and other very small-scale burning), 2) burning allowed subject to conditions specified in the rule, and 3) burning allowed only if a permit is obtained from the Department. Permitting and enforcement are handled by the Department's Field Operations Division, which has field offices throughout the state (except for prescribed burning by federal land managers, which is handled by the Department's Air Quality Bureau). Issues regarding prescribed burning and agricultural burning are not included in this report, but may be considered separately in the future.

The Department has identified several problems with the current rule and its implementation. The major problems include: 1) workload and expense to state government of administering the rule; 2) bureaucratic burdens for citizens seeking burn permits; 3) fire safety problems; 4) need for consideration of waste management opportunities and needs which have developed since the rule was originally developed; and 5) heightened concerns on the potential health impacts of emissions from household refuse burning.

NMELC agrees that changes are due on the open burn regulation. The potential health impacts of emissions from household refuse burning are of particular concern.

We recognize two different points of view on the proper role of local versus state government in the regulation of small-scale, non-commercial burning of refuse, yard waste and weeds by individual householders in rural areas and small villages. One viewpoint sees local governments as the most appropriate level for making and carrying out the decisions on regulating this burning. An option based on this view would make regulation of this burning entirely a local responsibility, with the state Environment Department serving as an information clearinghouse and continuing to provide assistance in community solid waste management.

Allowing open burning to be entirely a local issue is a dangerous proposition. Most counties and municipalities are not air-pollution-conscious. In addition, when local budgets become strained, open burning enforcement would likely fall by the wayside.

An alternative view would see state government as ultimately responsible for ensuring that air quality is protected, while recognizing that local governments are often better able to serve citizens in rural areas. This view would support a rule change defining the responsibility of the state to set minimum standards, with local governments having the option to take over regulation of this burning by adopting and enforcing ordinances at least as strict as the minimum standard.

A cooperative effort between state and local communities is an acceptable alternative provided the state sets minimum open burn standards, has approval authority over any open burn regulations, retains oversight responsibilities and the ability to fine communities that do not enforce their rules.

Possible state minimum standards for household refuse burning include consideration of whether government-provided trash pickup or drop-off facilities are reasonably available. A minimum setback distance from other residences is also under consideration. Another option would be a statewide ban on refuse burning.

In view of the toxic air contaminants produced by open burning of household trash, NMELC supports a statewide ban on such activities.

State minimum standards under consideration for burning of yard waste and weeds would eliminate the requirement to obtain a permit, but would allow this burning under conditions specified in the rule. These conditions could include a minimum setback from dwellings on other property, time-of-day limitations which are less restrictive than the current rule, and minimal fire safety requirements.

NMELC agrees that some form of open burning of household yard waste and weeds should be allowed. Perhaps a limit of one hour of burning per day and three days per week is reasonable. Quantities that require longer

hours to burn should be done at the community level where such vegetative matter could be dropped off and burned more efficiently.

Rule changes may be needed to deal with other kinds of open burning. We suggest new sections to provide clear rules for off-premises green waste burning (community slash pits and piles) and for on-site burning of land-clearing debris. Other changes are needed concerning burning of structures for firefighter training, emergency burning to remove imminent hazards, and liability for damages.

We also suggest that the rule be changed to set up a field citation program for enforcement against minor violations of the rule. This would replace the current practice of filing a criminal charge in magistrate court (usually after warnings).

3

I. INTRODUCTION

Open burning refers to any burning which is conducted out of doors, and which is not contained in an incinerator or other device capable of controlling combustion or emissions of the combustion products to the atmosphere. This covers a wide range of burning activities, including everything from backyard burn barrels and leaf piles to prescribed burning of National Forests by federal land managers. Since 1970, the New Mexico Environment Department (NMED) has administered and enforced a state regulation (20.2.60 NMAC) intended to control air pollution caused by open burning. NMED thinks that a thorough review of the problems and issues with open burning and its regulation is overdue. NMED receives more public complaints about open burning than for any other air pollutant source we regulate. Some recent enforcement actions and disputes over fire safety issues have been highly contentious. Administering this rule consumes a considerable portion of NMED's taxpayer-funded resources. Burdens imposed on the public may, in some cases, be of little or no benefit.

Much has changed in thirty years since this regulation was first adopted. There are now new systems for environmentally safe solid waste disposal, new scientific knowledge about fire and emissions from burning, heightened concern and new approaches to dealing with the threat of wildfires, new state responsibilities for environmental protection, and rapid population growth in some parts of the state. We think that a new regulation and new administrative measures will enable us to deal with open burning problems more effectively and more efficiently, and will better serve New Mexico citizens.

The purpose of this paper is to present the open burning issues and problems identified in NMED's initial assessment, and to propose some possible alternative approaches for dealing with these problems. Prescribed burning presents unique concerns, and NMED deals with this type of burning differently from all other types. NMED has therefore decided that prescribed burning will not be included in the present analysis, but will be reviewed, with public participation, in a separate process scheduled to begin within the next year.

We invite your comments on the possible changes outlined in this document and your suggestions for alternative changes to the ones proposed here.

II. THE CURRENT OPEN BURNING REGULATION

A. State's legal authority to regulate open burning

By state law (New Mexico Air Quality Control Act), the Environmental Improvement Board is responsible for adopting regulations for abatement of air pollution statewide (except in Bernalillo County and tribal lands). The Environmental Improvement Board consists of citizens appointed by the governor and is not part of the executive branch of government. Regulations adopted by the Board apply to all of New Mexico except tribal lands and Bernalillo County (including Albuquerque). The Air Quality Control Act also says that the NM Environment Department is responsible for developing air pollution control plans and for enforcing the regulations.

B. Relation to federal requirements

There is no federal law or regulation specifically saying that states must have an open burning regulation, or specifying what must be included in a state open burning regulation. However, this regulation is part of New Mexico's State Implementation Plan, which consists of the regulations and other measures taken by New Mexico to ensure that federal air quality standards are met. Virtually every state has some sort of open burning regulation. The need to limit open burning was recognized early in New Mexico's efforts to clean up the air. An Open Burning Regulation very similar to the current one was initially adopted in 1970, and the most recent substantive changes were made in 1971. Because this regulation is part of the New Mexico's State Implementation Plan, any changes to the rule are subject to federal review and approval. To obtain this approval, the state must successfully make the case that the changes will not jeopardize our ability to meet the federal air quality standards. This demonstration would probably consist of estimates of open burning emissions and dispersion modeling to estimate the resulting ambient concentrations of pollutants.

Within NMED's jurisdiction, there is currently one area (Anthony, NM) which has been designated as nonattainment for particulate matter (PM₁₀). Smoke, such as from open burning, can contribute to high levels of PM₁₀. The current open burning rule is part of the state's federally-approved plan for controlling PM₁₀ in that area. The federal EPA is unlikely to approve any relaxation of the open burning regulation as it applies to the Anthony nonattainment area.

C. Summary of the current regulation

The current regulation (20.2.60 NMAC) provides for a three-tiered system of allowable open burning, with each tier having a different degree of restriction. Different types of burning are assigned to each tier. The three tiers, or regulatory categories, are as follows (section numbers refer to sections of the rule, a copy of which is appended):

1) Allowed without restrictions (Sect. 109)

This category includes very minor sources such as campfires and ceremonial fires, fireplaces, fires for noncommercial cooking of food, and small warming fires at construction sites. Also included are natural gas flares and burning of explosives when necessary for safety reasons.

5

2) Allowed subject to conditions specified in the rule, "permit-by-rule" (Sects. 110 & 111)

This includes burning of refuse, disposal of dried tumbleweeds, and burning for agricultural management directly related to the growing or harvesting of crops (excluding

timber). Refuse burning is only allowed in communities which have a population of less than 3,000 people and which do not have a public refuse collection service or the economic means of establishing one. The population threshold is linked to Solid Waste rules that require municipalities with greater than 3,000 population to provide refuse collection service (20.9.1.106 NMAC). Burning under Section 110 is not allowed for salvage operations or to any person to whom a collection service is available. Burning under Sections 110 and 111 must meet the conditions specified in Section 112. Most of the conditions are intended to minimize the amount of heavy smoke or its impact on people. For example, the requirement that burning take place between 10 AM and 4 PM is intended to prevent trapping of smoke near the ground by atmospheric inversions which commonly occur at night. This time-of-day requirement does not apply to agricultural burning.

3) Allowed if a permit is obtained (Sect. 113)

This section is intended for all other types of burning. The rule lists a number of possible purposes. The most common types for which permits are issued are probably weed abatement, forestry management, and control of vegetation in irrigation ditches.

Applicants for permits are required to provide the information specified in Section 115. Information required includes simple information like location, date, and quantity and type of material to be burned. In addition, the applicant must give reasons why the burning is necessary, and reasons why alternatives to burning are not feasible.

Section 113 gives NMED broad authority to specify conditions for any open burning permit. In contrast to most other permits issued by the Department, the rule does not authorize NMED to charge a fee for these permits.

Section 115 gives the grounds on which NMED shall deny a permit. These are stated in very broad terms. A permit will be denied if NMED determines that there is a practical alternative to burning, if the health or welfare of any other person may be detrimentally affected, or if the ambient air quality of other property may be detrimentally affected.

D. Current administrative and enforcement procedures

Except for prescribed burning (described below), permitting and enforcement are administered by the Field Operations Division of NMED. This Division has 4 District Offices and 18 other Field Offices in cities and towns scattered around the state. Permits are issued at each Field Office. Permit conditions include the conditions from Section 112. Enforcement is mostly complaint-driven. Usually, warnings are given to first-time violators. If further enforcement action is needed, the usual course of action is for NMED Field Office personnel to file a complaint in the magistrate court having

6

jurisdiction. By state law (74-2-14 NMSA), a violation of this regulation is a petty misdemeanor, which means it is punishable by a fine of up to \$500 and a jail sentence of up to 6 months. The Air Quality Bureau may file a complaint in district court for serious violations.

Many local governments, especially in the cities and larger towns, have adopted their own local ordinances restricting open burning. Some ordinances are almost identical to the state regulation, while others are more restrictive.

Although issues involving prescribed burning will not be reviewed in this paper, it should be noted that administrative procedures are very different for this type of open burning. Permitting and enforcement for prescribed burning by federal land managers are

administered by the Air Quality Bureau of the Environmental Protection Division of NMED. Federal land managers and NMED have entered into a Memorandum of Understanding which describes in general terms how this permitting process will work, including required information for permit applications. In general, applicants must use standardized emission estimation techniques and smoke dispersion modeling to demonstrate that the proposed burning will not cause an exceedance of federal or state air quality standards. Violations, which are rare for this kind of burning, could be enforced by the Air Quality Bureau issuing a compliance order and assessing civil penalties pursuant to state law (74-2-12 NMSA) unless a settlement was reached. This is the standard enforcement procedure initiated by the Air Quality Bureau for violations by the industrial sources which are the Bureau's primary regulated community.

III. PROBLEMS

In recent years, NMED has become increasingly aware of problems with the open burning regulation and its implementation. Some of the problems are:

A. The current system for regulating open burning is expensive

Each year, NMED Field Operations Division issues more than 8,000 open burning permits and responds to more than 500 complaints about smoke and odor from open burning. In staff time alone, this costs state government over a quarter of a million dollars each year. No federal grant funds or fees are specifically earmarked for this activity, so the cost is absorbed by the general fund. We need to look for ways to spend less taxpayers' money, while providing the public with both good service and protection of air quality.

7

B. Citizens are burdened by having to get permits for types of burning that are routinely allowed

Individual citizens have to fill out an application and get a burn permit for many types of burning. Most burn permits are for disposal of yard waste or clearing of weeds or brush. Although the rule allows NMED to consider the particular circumstances of each proposed burn and specify permit conditions on a case-by-case basis, all permits include the conditions contained in Section 112 ("tier 2" in Chapter II.B above). Obtaining a permit is very difficult for people who work during regular weekday hours, because Field Offices are not open nights and weekends. Having to get a permit ensures that the person burning is informed about the conditions under which they can burn, but maybe there is a more efficient and convenient way for the public to be informed.

C. Fire safety problems

Although permit applicants are required by their permit to contact their local fire department before burning, some destructive wildfires have resulted when burning was conducted by permit holders under unsafe conditions. For burning that does not require a permit but is subject to conditions in the rule ("tier 2"), there is another fire safety problem: in some areas and in some seasons, it is too windy to burn safely during the 10 AM - 4 PM period when burning is allowed.

D. The rule is outdated for today's waste management opportunities and needs

The current rule hasn't been changed in 30 years, so it doesn't take into account recent developments in solid waste management. The rule allows household refuse burning

where "collection service" is not available, and this originally referred to on-premises pickup service. Today, many rural areas and small towns have a system of new transfer stations and convenience centers which provide a clean, environmentally safe way to get rid of household trash. When these drop-off facilities are reasonably available, should people be expected to use them instead of burning their trash?

Another problem is how to dispose of yard waste if it is not burned. Because of heightened concern over wildfires, residents of many communities are thinning out fuel to create defensible space around residences, and large amounts of yard waste and slash are being generated. Modern sanitary landfills are more expensive than the old "town dumps" they have replaced because they are sited and engineered to safely contain potential contaminants of groundwater. Local solid waste management authorities do not want valuable landfill capacity to be consumed by clean vegetative waste which poses no threat to groundwater. The best solution is to recycle this material for some beneficial use, such as firewood, wood chips for landscaping, mulch, or compost. Some communities already have yard waste recycling programs, and more communities will start programs as funds become available for chippers and other needed equipment. However, recycling and reuse programs are not keeping up with the greatly increased

8

generation of yard waste and slash in some communities, and it may not be practical to achieve 100% recycling/reuse.

E. New studies indicate that smoke and fumes from burning household refuse are very dangerous to health, not just a nuisance

Recent studies show that just one household burn barrel produces more dioxin than a modern municipal waste incinerator burning the waste from thousands of households. Dioxin is one of the most potent cancer-causing chemicals known. Dioxin accumulates in the food chain and in people's bodies and, in animal experiments, has been shown to interfere with the normal function of sex hormones. Burn barrels emit significant quantities of a number of other toxic or cancer-causing chemicals, such as hydrochloric acid, hydrogen cyanide, benzene, styrene, hexachlorobenzene, and polychlorinated biphenyls (PCBs). Because these health concerns are much greater than previously thought, several states have taken steps in recent years to reduce household burning through tighter restrictions and/or public education campaigns.

On account of the production of such dangerous air contaminants, NMELC supports a complete ban on open burning of household trash.

IV. ALTERNATIVE VIEWPOINTS ON BURNING BY HOUSEHOLDERS

Most of NMED's permitting, complaint response, and enforcement activity is for the small-scale, non-commercial burning that is conducted by individual householders on their own premises, including burning of household refuse, burning of yard waste, and burning for weed removal. Even though state government has legal authority to regulate such burning, the question remains whether state government should exercise this authority or leave regulation of this activity to the local municipal or county government

which has jurisdiction. Two different views of this issue are summarized below, each supporting an alternative proposal (Options 1 and 2, respectively) for residential household waste burning and for residential yard waste and weed burning.

A. Local responsibility

Under this view, the state should let local governments decide whether to regulate this activity, and to set restrictions, administrative procedures, and penalties as they see fit. Arguments in support of this view are:

This is a nuisance problem, which should be dealt with by local government like other nuisance problems. Smoke from a burn of this type impacts only a small area, and usually only for a brief period of time. Outside of cities and towns, only one to a few immediate neighbors may be affected. When NMED staff respond to a complaint about this burning, they are drawn into disputes between neighbors over a problem that

9

actually amounts to a nuisance. This is comparable to calling on state government to deal with a complaint about a neighbor's dog barking all night. Entering private residential property against the owner's wishes, even though such entry is legal, can result in dangerous confrontations that are more appropriately handled by law enforcement officers than by agency staff. Most people think that local government is the proper agency to deal with other nuisance issues, such as excessive noise that affects a neighbor. Even if the local government does not have or does not enforce an ordinance against a particular nuisance, individual citizens may still seek a remedy by filing a nuisance complaint in local courts.

This is a fire safety problem, which should be dealt with by local firefighting authorities. Communities are much more concerned about this burning creating a potentially catastrophic wildfire than they are about the impacts of smoke on air quality. If state government no longer regulated this burning, local governments and local firefighting authorities could set up whatever procedures best suit the fire safety needs of their particular communities without potential conflict with state rules and procedures. Citizens would also be relieved of the burden of having to get both a state and a local permit for some kinds of burning. We could also avoid the situation where, despite warnings to the contrary, citizens who have obtained an NMED burn permit think that they have a "license to burn" regardless of fire safety considerations.

Local government can deal with this more efficiently. Efficiency is often the basis for deciding whether state or local government should have responsibility. That is, which level of government can provide the most convenient service to citizens at the least cost of taxpayer funds? Many people would acknowledge that state government agencies can most efficiently deal with a problem when there is need for specialized technical knowledge or equipment that would exceed the financial means of most local governments. But any practical regulation for this type of burning would not require any such specialized technical expertise or equipment. From a technical point of view, any controls on this burning

could just as easily be administered by local officials (such as firefighters, law enforcement or codes enforcement officers) as by state agency personnel. In rural areas, local officials are far more accessible to the public than the relatively small number of NMED staff, whose offices are in the larger towns. Some local officials such as firefighters and law enforcement officers can be contacted nights and weekends when NMED staff are unavailable. For NMED to provide the same level of accessibility and convenience as can be provided by local government officials would require hundreds of new part-time staff positions and new offices scattered around the state, which would be very expensive and inefficient.

Again, local control is a viable option provided the state sets minimum open burn standards, has approval authority over any open burn regulations, retains oversight responsibilities and the ability to fine communities that do not enforce their rules.

10

B. State responsibility

Under this view, state government is ultimately responsible for ensuring that air quality is protected, for the benefit of all New Mexico citizens; as a convenience for their citizens, local governments may choose to assume responsibility for implementing the regulations as long as they meet or exceed the minimum standards set by the state. Arguments in support of this view are:

This is an air quality problem for which state government is ultimately responsible. Although an individual burn of this type may be quite small, the cumulative impact of unrestricted burning could have a significant impact over a large area, and could easily cross local jurisdictional boundaries. Dioxins, PCBs and some other toxins produced by refuse burning persist in the environment, in plants, and in animals for years, during which time they may be transported great distances by wind, water, and the movement of organisms. Lifting state restrictions on this burning could be seen as encouraging burning as an alternative to waste disposal, and could lead some local communities to rescind their open burning ordinances. Federal and state law make state government accountable for ensuring that federal and state air quality standards are met. If state government no longer had the authority to control this source of air pollution, situations could arise where tighter restrictions on other air pollutant sources were needed to ensure that standards were met. This could mean tighter restrictions on industrial sources of air pollution, which could hurt economic development.

NMELC believes the state should be ultimately responsible for open burning. It is the state that is legally obligated to protect the NAAQS and the NMAAQs.

State government can set a minimum standard, and encourage local communities to assume responsibility if they want better service or more restrictions. Local government does have the capability to provide better service and better integration of fire safety considerations than NMED. Communities have the option to provide their citizens with the higher level of service inherent in local implementation, by adopting open burn ordinances equally or more stringent than the state regulation. NMED can continue to encourage local governments to exercise this option, but cannot mandate them to do so. If a local government chooses not to adopt and implement an open burning ordinance, then state government cannot abandon its ultimate responsibility for air quality, and must therefore implement the state rule as best it can. State government is obligated to make sure the state regulation is not unduly burdensome, complex, or restrictive, and that procedures for implementing the rule are efficient and not wasteful of tax funds.

The Environment Department should consider fire safety issues in developing and implementing its open burning regulation, but cannot assume responsibility for fire safety. This burning can cause problems

11

with both fire safety and air quality. NMED cannot usurp the authority of local fire officials for fire safety, but has conditioned permits on the notification and approval of the local fire authority before beginning an open burn. There is no uniform statewide set of fire safety restrictions for this burning because it is under the jurisdiction of local governments, except for lands under the jurisdiction of the Division of State Forestry, and the need for restrictions varies with weather conditions and from place to place within the state. NMED should develop restrictions to protect air quality that are simple, easy to apply, and which minimize conflicts with fire safety considerations. There will be some circumstances when burning should be prohibited because of air quality impacts even though it is a good time to burn from the fire safety point of view. But it should be possible, with the help of fire safety officials, to develop an air quality regulation that restricts burning to only times when it is safe. NMED can also cooperate with local fire officials to make sure that citizens know that an NMED permit or rule allowing them to burn does not relieve them of any requirement to notify their local fire department and meet any fire safety requirements imposed by fire officials.

V. PROPOSED RULE AND IMPLEMENTATION CHANGES

A. Residential household waste burning

This refers to burning of household waste on the property where it is generated.

Option 1: Local control, no state restrictions

Under this option, the state Open Burning regulation would be amended to remove all restrictions on this burning. This burning would remain subject to whatever restrictions were imposed by local ordinances. NMED would implement non-regulatory measures to minimize this burning and to encourage local governments to adopt restrictions. These measures would include outreach and public education on the toxic effects of burn barrel

emissions, continuing efforts to provide rural communities with clean, affordable solid waste disposal alternatives, and serving as an information clearinghouse on local ordinances.

Again, bad idea. Outreach and public education on the toxic effects of burn barrel emissions is, however, essential.

Option 2: State minimum standards, option for local control if meet or exceed standard

Under this option, the rule would prohibit burning of plastic, tires, furniture, carpet, electrical wire, and appliances, and would set forth conditions under which those wastes generated in daily living in a residence could be burned. Yard waste and weed burning would be covered by a different section of the rule (see below). This burning would be more restricted than yard waste and weed burning because residential burning of plastics and other components of household refuse produces highly toxic emissions.

12

As in the current regulation, no permit would be required for this burning. The rule would prohibit this burning where one or more of the following conditions exist:

- a) government-provided (including government-contracted) on-premises refuse collection service is provided to the household;
- b) a government-provided refuse drop-off facility (such as a convenience center or dumpster) is available within 15 miles of the residence;
- c) the burning would be within a distance of 1000 feet from a residence or other occupied structure on other property.

The principle behind these restrictions is that, because of the toxicity of emissions from this burning, it should not be allowed where a less harmful means of disposal is reasonably available. The reason for including only government-provided services is that governmental decision-making will ensure that costs to citizens are reasonable.

Otherwise, citizens could conceivably be forced to choose between burning in violation of the regulation or paying an unreasonably high rate for an independent private waste disposal service. "Curbside service" will never be economically feasible in truly rural areas. Local solid waste authorities are increasingly relying on a network of convenience centers, dumpsters and other publicly-provided drop-off facilities to serve the waste disposal needs of rural areas. The necessity to drive some distance to obtain products and services is generally accepted as part of the rural lifestyle, so it is not unreasonable to expect that some travel would be required for proper disposal of one's refuse.

The condition for a minimum setback of 1000 feet from neighboring dwellings is to ensure that a citizen is not forced to breathe heavy smoke and toxic fumes from a neighbor's refuse burning. This provision is likely to be relevant in only a few areas, where dwellings are clustered together but in a location so remote that it is not feasible to provide a refuse drop-off facility.

NMED Field Operations Division staff would be responsible for initiating enforcement action by issuing a field citation, except where local government had exercised its option to take over regulation of this burning by local ordinance. The state rule would not be in effect where the NMED Air Quality Bureau determines that a local ordinance equally or more restrictive has been adopted. If a field citation is ignored or additional violations

occur, the Air Quality Bureau would file a complaint in district court. We suggest that the rule should have an effective date delayed by six months to a year after adoption of the rule, to allow time for a public education campaign, outreach to local governments regarding the benefits of a local ordinance, and NMED review and approval of local ordinances. To encourage voluntary compliance, NMED's public education campaign on the health hazards of refuse burning would continue as an ongoing program after the effective date. Some local governments and solid waste authorities will be concerned that these new restrictions on refuse burning will result in significant increases in waste volume and waste disposal costs. The proposed delay in the effective date of the new rule would give them time to increase recycling and other waste diversion/reduction programs, and keep increases in waste disposal costs to a minimum.

13

The requirement to transport one's household refuse to a nearby drop-off facility may impose a hardship on a small number of rural residents who are disabled or otherwise physically incapable of transporting their refuse. In many cases, this need can be met by the same agencies responsible for meeting other daily needs (e.g., bringing groceries) of such disabled persons. If there appears to be need for additional assistance, NMED would explore setting up an assistance grant fund to reimburse reasonable costs of hiring a private waste hauler for such individuals. This fund could perhaps be supported by Supplemental Environmental Project (SEP) payments. SEPs are projects that a company voluntarily agrees to perform as part of the settlement of an enforcement action, which offset payments that would otherwise be made to the state general fund.

Option 3: Statewide prohibition

A third option would be to prohibit this burning statewide (within the jurisdiction of the Environmental Improvement Board). The rationale would be that the persistent and bioaccumulative toxins produced by this burning pose a serious long-term health threat. This option would avoid the disputes over distance to drop-off facilities or to neighbors that could arise under Option 2. Households in remote areas would be encouraged to take their refuse to solid waste disposal facilities, but they would also have the less desirable option of burying their refuse on the premises. Burial of waste on the premises where it is generated is exempt from the state's solid waste rules.

Again, a statewide ban is the wisest course of action.

B. Residential yard waste and weed burning

This refers to burning of weeds (standing or cut) and other vegetative material resulting from property maintenance, burned on the property where it was generated. It does not include agricultural burning, or prescribed burning conducted by federal or state land management agencies (see below). It does not include land clearing waste generated in the process of clearing land for purposes of construction, development, or other changes in land use.

Option 1: Local control, no state restrictions

Under this option, the state Open Burning regulation would be amended to remove all restrictions on this burning. It would, however, remain under whatever restrictions were

imposed by any local ordinance. NMED's Solid Waste Bureau would continue their grant programs and other efforts to provide communities with chippers, composting facilities, and other means to eliminate this material from the solid waste stream without burning. NMED would encourage the adoption of local ordinances. By eliminating the confusion over state vs. local responsibility for both the nuisance effects and wildfire hazards of this type of burning, this rule change should in itself lead to the adoption of new burning ordinances in communities where such ordinances are currently lacking.

Again, unrestricted local control is a disaster waiting to happen. Local governments are rarely attuned to the health effects of air pollution.

Option 2: State minimum standard, option for local control if meet or exceed standard

14

Under this option, the rule would be amended to eliminate the requirement that permits be obtained from NMED for this burning. Instead, this burning would be allowed subject to the following conditions:

- a) minimum setback of 300 feet from dwellings on other property;
- b) burning allowed only from one hour after sunrise until one hour before sunset;
- c) local fire district must be notified prior to burning;
- d) burning must be attended by a responsible party at all times.

NMELC can live with a no-permit requirement. But a notification requirement to the field office (can be left as a voice mail) at least 24 hours in advance of the burning should be considered to allow the agency the opportunity to be present. NMELC would also like to see one more restriction: limit such open burning to one hour per day, three days per week to prevent burning of very large quantities of vegetative matter.

This permit-by-rule approach should substantially reduce burdens on both NMED and the public, by eliminating permit application and issuance which is usually routine and largely automatic. It should eliminate the problems created by the limited accessibility of NMED staff (no evening and weekend hours, no local offices in rural areas).

The setback requirement is intended to provide some protection to neighbors having to breathe the smoke from this burning. Because this smoke is less toxic than smoke from burning household refuse, the setback distance can be less.

The time-of-day requirement would be less restrictive than in the current regulation, but should provide about the same protection against smoke being trapped near the ground by nighttime inversions. Inversion conditions commonly do not persist beyond one hour after sunrise. During late spring and summer, burning one hour after sunrise should be early enough in the day to avoid burning under unsafe high wind conditions, while still being late enough to avoid smoke being trapped near the ground by an inversion.

Requiring that the local fire authorities be notified would serve as a reminder that being allowed to burn by this rule does not relieve the burner of any fire safety requirements imposed by those local officials. Requiring that the burn be attended at all times would enhance fire safety and prevent anyone burning improperly from escaping enforcement

action by leaving the fire unattended.

C. Unrestricted burning

We propose that the current rule for this burning be retained. This allows unrestricted burning for purposes of recreational and ceremonial fires, barbecuing, fireplaces, gas flares, disposal of explosives, and other similar purposes.

D. Off-premises green waste burning (slash pits and piles)

We propose a new section of the rule to regulate burning of community green waste collected at sites operated by government officials, usually local government. These are commonly referred to as "slash" pits or piles, even though the collected vegetative material is usually not waste from commercial timber harvesting activity, but is generated from maintenance, clean up, and fuel reduction on private property and public areas such as parks, rights-of-way, and so forth. Sometimes devices known as Air Curtain Destructors (ACDs) or Air Curtain Incinerators are used for burning this material in a

15

manner to achieve more complete combustion. We would propose a separate state rule to incorporate current federal requirements for ACDs.

The rule would allow burning of clean, untreated (no preservatives, paint or other coatings) wood waste in addition to brush, tree branches, leaves, pine needles, and collected weeds. A permit issued by the NMED Air Quality Bureau would be required.

A permit must definitely be required for such burning.

The rule would specify some minimum permit conditions, such as:

- a) material must be dry, contain no trash and minimum amount of dirt
- b) material must be inspected by NMED staff prior to burning
- c) local fire department must be notified, and approval obtained if required
- d) minimum setback from occupied dwellings

The NMED Air Quality Bureau would be allowed to impose in the permit any other conditions necessary to minimize smoke impacts and protect public health. Prior to implementation of this section, the Air Quality Bureau would determine the potential demand for permits of this type, and would develop standard permit conditions and guidelines if more than a few applications were anticipated. Permit conditions could include a requirement that the lack of other feasible disposal options be demonstrated. As described earlier, many communities are generating increasing amounts of green waste as they step up efforts to reduce wildfire hazards by removing vegetative fuel around residences and from the wildland-urban interface. Given the high cost of disposal in a sanitary landfill, these communities are in need of alternative means of disposal. Many potential alternatives are better than open burning, either from the standpoint of environmental effects or energy conservation. These alternatives include producing mulch, compost, or wood products, or energy recovery. However, there will be cases where these alternatives are not available. We considered a blanket prohibition on this burning, on the grounds that allowing it undercuts the incentives for more environmentally desirable means of disposal. This idea was rejected because communities faced with prohibitive costs for alternative means of disposal would likely turn to backyard burning by individual householders, which would greatly increase wildfire hazards. Therefore, the proposed rule is intended to strike a reasonable balance,

allowing this burning when alternatives are not feasible and minimizing air quality impacts when this burning is necessary. Permit application review by the Air Quality Bureau should ensure that permitting decisions are based more firmly on technical analysis and are more consistent than in the current system, where general open burning permits are issued by Field Office staff.

NMED, other agencies, and the private sector need to continue efforts to make available reuse/recycling alternatives to burning. The Air Quality Bureau would propose Supplemental Environmental Projects to purchase chippers or equipment to produce mulch or compost.

Changes in the state's Solid Waste Management Regulations (20.9.1 NMAC) may be needed. This rule does not allow burning at solid waste facilities. Community green waste pits or piles would appear to fit the definition of "solid waste facility" because the definition of "solid waste" is so broad that it may include collected green waste, even

16
when this material is free from any other sort of refuse. There is no blanket prohibition on burning of vegetative material on the premises where it grows, such as backyard burning of yard waste, prescribed burning of forest and rangeland, or burning of slash from timber-harvesting operations. Therefore, it is difficult to see how the action of collecting and depositing green waste elsewhere (where it can be more safely burned) should automatically justify a complete ban on its burning. NMED would therefore propose amending the definitions of "solid waste facility" in 20.9.1 NMAC to exclude facilities used exclusively for the collection of clean yard waste and other vegetative material.

E. On-site burning of land-clearing debris

We propose that this be defined to include vegetative debris from clearing of land for purposes of changing land use to any use other than growing of crops (which would be classified as agricultural burning). The rule would be amended to specifically require a permit from the Air Quality Bureau, similar to the permit for community slash pit burning described above. A permit fee would be charged, sufficient to cover the Bureau's cost of review. Very small burns would be exempt from this section of the rule, but would fall under the section for residential yard waste and weed burning.

Large-scale land clearing can generate large amounts of vegetative debris. Use of bulldozers and other heavy equipment for clearing can mix large amounts of dirt with the vegetative material, which results in poor combustion, large amounts of smoke, and smoldering over many hours. Land being cleared is often near dwellings or other occupied structures on other property, so there is the potential for serious smoke impacts if the debris is burned. Alternative means of disposal are almost always feasible, especially considering that this burning is almost always done for commercial purposes and the costs of proper waste disposal should be included in the cost of doing business.

F. Agricultural burning

This rule change is not intended to change the current requirements for agricultural burning (i.e., allowed without a permit but subject to conditions listed in the rule). However, the current rule lacks a clear definition of "agricultural operations", and this has led to confusion and disputes. NMED will propose that agricultural operations be defined to exclude casual, small-scale, noncommercial gardening and animal raising such as is often conducted by householders. Such burning which is not considered truly

agricultural would be covered by the section of the rule on household yard waste and weed burning.

A restriction on the number of hours per day would be desirable, say 4 hours per day maximum.

G. Prescribed burning

This type of burning will be addressed in a separate rule, currently scheduled for development later in 2003.

17

H. Burning of structures for firefighter training

Before houses or other buildings which may contain asbestos are burned, the agency conducting the burn must inspect for asbestos and have it removed according to procedures specified in federal asbestos rules. We propose adding a requirement to the rule that would require pre-burn notification to the Air Quality Bureau before burning of buildings or other structures that may contain asbestos. This is already required by federal rules, so putting this requirement in the Open Burn rule will simply serve as a reminder of this existing requirement.

I. Emergencies and hydrocarbon spill cleanup

We propose adding a provision to allow emergency burning to remove an imminent hazard by permission of the Secretary of the Environment Department. Burning is usually not the safest way to clean up pipeline or tanker spills, but it may be the only feasible method in some instances. Emergency cleanup may require involvement of several different agencies within the Environment Department, so Secretarial-level approval ensures that all environmental concerns have been addressed.

J. Liability/responsibility statement

We propose adding a statement to the rule clarifying that the person burning is responsible, by state law, for fire suppression costs and damage to other property, and that they are not relieved of this responsibility even if the burning is done in accordance with this Open Burning rule. This does not add any new requirement, but may help to avoid situations where a burn permit or other permission from the Environment Department is assumed to be a "license to burn" or a defense against liability.

K. Field citation program

We propose adding provisions to establish a field citation program for enforcement of this rule. The New Mexico Air Quality Control Act (74-2-12 NMSA 1978) allows the Environmental Improvement Board to promulgate regulations setting up a field citation program for minor violations. As specified in the statute, a person who is issued a field citation may elect to pay the penalty assessment or to request a hearing by the Environment Department. If a request for hearing is not made in the time provided in the regulation, the penalty assessment becomes final. Penalties collected are deposited in the state general fund. Proposed penalty amounts are expected to be in range of those for littering.

The Air Quality Control Act provides for a variety of enforcement mechanisms. The Open Burning rule is the only state air quality regulation which is routinely enforced by filing a petty misdemeanor complaint in magistrate court. Field citations are expected to avoid the stigma of a criminal conviction and should instead be viewed as more like a

traffic ticket.

18

Department policy would be to use field citations for enforcement of the sections of the rule regarding burning by individual householders. Other violations would be enforced by the Air Quality Bureau by means of compliance orders and assessment of civil penalties, the same mechanism the Bureau customarily uses for other violations of air quality regulations.

VI. HOW THE PROPOSED CHANGES ADDRESS THE PROBLEMS IDENTIFIED

This section describes how the proposed changes will alleviate the problems described in Section III above.

A. Agency expense and workload

About 75% of the Department's Open Burning workload is currently devoted to taking permit applications and issuing permits. The proposed changes would eliminate the issuance of permits for burning of yard waste and weeds by individual householders, which is the type of burning currently responsible for the great majority of permits. The relatively small number of permits for other types of burning will be handled by the NMED Air Quality Bureau, which is largely supported by federal grant funds. Therefore we expect that the expense to New Mexico taxpayers of implementing this rule should be substantially decreased.

NMED Field Office staff would still have responsibility for enforcement of the permit-by-rule restrictions. Transferring this responsibility to the NMED Air Quality Bureau is not practical because the Air Quality Bureau does not have the extensive network of field personnel needed to provide a timely and effective response to complaints. The proposed changes include several elements that should decrease the enforcement workload: 1) the statewide, continuing public education campaign should increase voluntary compliance and reduce the number of violations and complaints, 2) simplified state minimum standards and increased outreach to local governments on the advantages of a local ordinance should result in more communities assuming local responsibility for burning by householders, and 3) the field citation program should streamline the enforcement process.

B. Burdens on citizens

Eliminating the need for householders to obtain permits for burning yard waste and weeds would greatly reduce the burden on citizens. Under Option 2 (state minimum standards) for household refuse and yard waste burning, citizens would have a new responsibility to know the rule requirements for this burning. The proposed statewide education campaign and allowing for a transition period between adoption of the rule and its effective date should allow citizens ample opportunity to learn about the requirements of the new rule.

19

Under Option 2, some citizens who have been burning their household refuse would have the additional burden of transporting the waste to a drop-off facility, and some communities or individual citizens will have increase waste disposal costs. However, the rationale for this option includes the observation that communities and the state as a whole must bear the "hidden costs" of illness caused by the pollution from this burning,

including lost worker productivity, poor school attendance, increased Medicare, Medicaid and health insurance costs, and so forth. There is also the view that one cannot dispose of waste on someone else's property (in the form of smoke and fumes) simply because it is cheaper than proper disposal. In cases of genuine hardship, the difficulties in removing refuse (used goods) from a residence can be met in the same way as difficulties in bringing goods to the residence.

C. Fire safety problems

Fire safety problems are an issue mostly for burning of refuse or yard waste by householders. All of the proposed options for these types of burning would eliminate the fundamental problem of mixed responsibility for fire safety, by clarifying that this is appropriately the responsibility of fire safety officials. The transition period between adoption of the new rule and its effective date should allow local governments, including fire officials, to make any changes in their rules or procedures that may be necessitated by the elimination of NMED permitting for burning by householders.

Under Option 2 for yard waste burning, the time-of-day restriction would be eased sufficiently to allow burning early enough in the morning to avoid the fire dangers caused by high winds.

D. Waste management issues

All of the options proposed for household refuse burning would resolve the question of whether availability of drop-off facilities should be considered as a reasonable alternative to burning. Options 1 and 3 make this question irrelevant, and Option 2 would explicitly consider availability of drop-off facilities in determining whether this burning was allowed.

There is a risk that increased restrictions on household refuse burning could result in more illegal dumping. However, we do not think that open burning is an acceptable solution to the problem of illegal dumping, and the efforts of state and local government to enforce regulations against illegal dumping should continue and may have to be intensified if necessary.

The proposed permitting system for community green waste pits and piles would allow for the safe disposal of this material when alternative means of disposal are not feasible.

20

E. Health effects of household refuse burning

Under Option 1 (local responsibility), any health effects of household refuse burning are considered to be minimal. To the extent that there are health effects, the viewpoint supporting Option 1 would consider local government to be responsible for weighing health effects, cost and availability of alternative disposal methods, and fire safety issues to arrive at a solution that best suits the needs of the local community. In the absence of state regulation, some communities will choose to impose their own restrictions on this burning, while other communities may choose less stringent or no requirements. Over the long term, NMED's proposed education campaign on the health effects of this burning may result in more communities adopting local ordinances to restrict this burning, and in more voluntary reductions in trash burning by individuals.

Under Options 2 (state minimum standards) and 3 (prohibition), this burning would be more restricted than under the current rule. Because enforcement would continue to be primarily complaint-driven, achieving actual reductions in refuse burning would depend heavily on how much change there was in public attitudes towards this burning. The

proposed new restrictions in the rule, combined with complaint-driven enforcement, provide a mechanism whereby increasing public concerns about health effects would automatically be reflected in decreased burning and greater use of alternative means of disposal.