

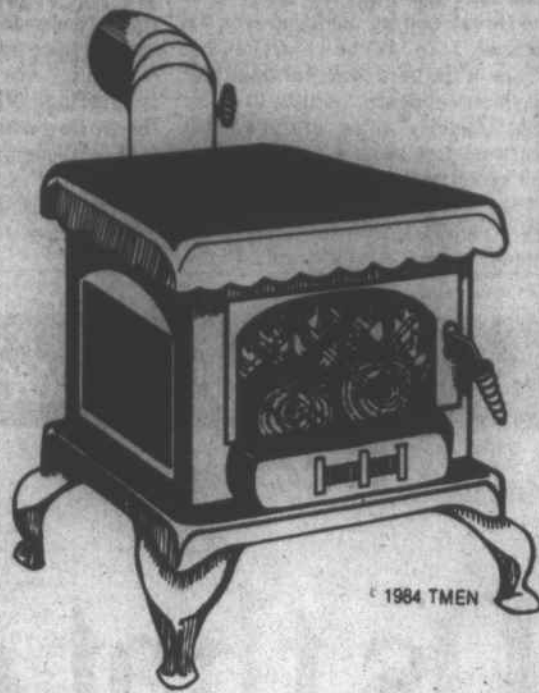
# Doing MORE...With LESS!

## THE MOTHER EARTH NEWS

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### HOW TO CONTROL WOODSTOVE POLLUTION

In 1980, a study by Monsanto and Auburn University sounded the alarm about woodstove emissions. Subsequent research by more than a dozen different laboratories has confirmed that "airtight" woodstoves emit larger amounts of carbon monoxide, particulates, and unburned hydrocarbons than do old-fashioned woodburners. But the importance of the Monsanto team's discovery of significant amounts of "polycyclic organic matter," or POM (sometimes called "polycyclic aromatic hydrocarbons," or PAH, many of which are known carcinogens), in smoke is only beginning to be understood. And perhaps the least understood of the woodburning-related pollution problems came to light with the discovery by a Geomet Technologies team that many woodstove-equipped homes have indoor levels of carbon monoxide, breathable particulates, and members of the POM family that are more than ten times greater than outdoor measurements taken at the same time.



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There is a positive side to our recent woodstove emissions research, however. We've learned more about the physics of combustion in the last few years than in all the years since humankind discovered fire. In turn, new stove designs and aftermarket products are rapidly being developed to deal with already recognized pollution problems. In addition, a wealth of information concerning how a woodstove owner can operate his or her stove in a cleaner fashion has recently become available. Here are five proven ways that can clear the air.

**Rule 1:** Use the largest-diameter logs that will burn effectively. Big pieces of wood have less surface area per unit of volume, which prevents them from releasing volatiles too rapidly. This has been recognized as the single most effective operator technique for reducing emissions.

**Rule 2:** Build as small a fire as is practical. A stuffed firebox often leads to areas of pyrolysis (the release of volatile gases trapped in the structure of the fuel) and/or charring that can't be reached by an adequate air supply. Therefore, use as few of the large pieces of wood as you can while producing adequate heat.

**Rule 3:** Keep the fire hot. Position the logs in your stove so that air can move through the fire zone, and be sure there's sufficient draft opening. Since you're already trying to make the fire as small as possible, you can maintain high temperatures inside the stove without overheating your home.

**Rule 4:** Don't increase or decrease the draft setting drastically. Pyrolysis continues for some time after the air supply has been cut back, so slamming the damper shut can send much of your hard-won fuel up the chimney. On the other hand, rapid opening of the damper can carry the pyrolytic products away from the fire too quickly, especially if there's a significant wind-induced draft.

**Rule 5:** Avoid excessively wet or dry wood. Logs that are too dry pyrolyze very quickly, overloading the combustion zone with volatile gases, while very moist timbers can inhibit effective combustion by absorbing heat for evaporation.

Following the procedures listed above will not only cut down the pollutants coming from your woodstove but will also help to keep your stovepipe cleaner and allow you to obtain more heat from a given amount of wood.

For FREE additional information on woodstoves and on THE MOTHER EARTH NEWS magazine, send your name and address and ask for Reprint No. 1932: "Woodstove Smoke." Write to Doing MORE...With LESS!, 105 Stony Mountain Road, Hendersonville, NC 28791, or in care of this paper. Copyright 1984 THE MOTHER EARTH NEWS, Inc.

## Marshall

Continued from Page 1

The board also discussed town policy regarding the cutting of firewood on town property on Hunter's Creek. No action was taken, but residents wishing to cut on the property are asked to come to Town Hall before beginning to cut wood.

The alderman voted to allow Booth Marler to cut several dead locust trees at the Recreation Center. Marler will be responsible for any damages while cutting the trees down.

The board also voted to change their regular monthly meeting date to the second Monday of each month. The change had been requested by Frank and Cecilia Ward in order to have more time to prepare the town's monthly financial statement. The next regularly scheduled meeting of the town board will be held on Dec. 10 at 7:30 p.m.

The town also voted to advertise for bids on the town's police shack on Main Street. The hut is no longer in use and is not needed by the town police. Police operations will be moved into the second floor offices of the Town Hall after wiring is completed.

The police came in for praise from one merchant on the bypass. Mayor Wild read a letter from the merchant thanking the police for patrolling around his business.

A representative of the Marshall Free Will Baptist Church also addressed the meeting to ask if the church's water and sewer bill couldn't be reduced.

Mayor Wild explained that the rates for water and sewer service were set up by the Framers Home Administration as part of the agreement to fund the sewer project. The rates set by FmHA are needed to insure the town can pay off the bond debt on the project.

Springs police. After the board voted 2-1 to rehire McLenn, Mayor Wild asked that his opposition be placed in the minutes of the meeting.

McLenn is not a certified police officer. He will go to work as soon as a check on his record is completed.

In other business, the aldermen approved a bid of \$10,000 submitted by the Madison County Housing Authority for the administration of the Community Development Block Grant to rebuild the

In accepting the bid, the aldermen bypassed lower bids submitted by both the Land of the Sky Regional Council and Frank and Cecilia Ward of Marshall. The aldermen accepted the higher bid because the housing authority agreed to provide more services than those in the lower bids.

The aldermen also voted to hire Harold Anders, a former town employee, as a helper with the Water

and Sewer Dept.

The board also approved a request for funds to repair the town fire truck. Larry Davis told the board that the truck's pressure system will have to be rebuilt.

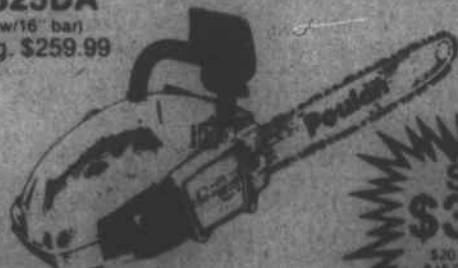
Cost of the materials to make the necessary repairs will be between \$1,200 and \$1,500. Members of the fire department will provide the labor to make the repairs.

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## Witnesses

Continued from Page 2

There were some 60,000 Jehovah's Witnesses world-wide in 1938. Nazi and Fascist regimes in Germany and Italy persecuted Witnesses during World War II. Despite the persecution, enrollment increased to 141,606 by 1945. While there were only 120 Witnesses to be found in Italy in 1946, today there are 109,351 and the faith is the country's second largest.

There are more than 100,000 Witnesses in Mexico, Brazil and West Germany today.

As the faith begins its second century, Witnesses firmly believe that the world is near its end and have accepted the Biblical assignment of warning all nations.

The Witnesses have maintained their international unity and peace among themselves undivided by language, customs, cultures or political boundaries.

A French-Canadian journalist, writing in Le Journal de Montreal, said of Jehovah's Witnesses, "If they

were the only people in the world, we would not have to bolt our doors shut and put on the burglar alarm at night."

What they believe, the seriousness they attach to those beliefs and the ways they conduct their lives differ strongly from many people in general, but Witnesses don't seem to care that others view them as 'different.' They concern themselves with their standing with God and discharging the mission of evangelism they have embraced.

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