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PROPOSED ADOPTION OF RULE 2.40, WOOD BURNING APPLIANCES

FINAL STAFF REPORT

December 1, 2004

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ATTACHMENT B NOTICE OF EXEMPTION FROM CEQA GUIDELINES

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I. EXECUTIVE SUMMARY

On December 8, 2004, the Yolo-Solano Air Quality Management District (District) Board of Director's will consider the adoption of proposed Rule 2.40, Wood Burning Appliances. A wood burning appliance refers to any fireplace, wood heater, pellet-fueled wood heater, or any other similar enclosed device, which burns solid fuel, and is used for aesthetic or space-heating purposes. Wood smoke from wood burning appliances is emitted primarily due to incomplete combustion of fuel. Wood smoke contains hundreds of chemicals and air contaminants shown to have adverse effects on health. Particulate matter, especially particles less than ten microns in size are of special concern. Activity from wood burning appliances is a significant source of particulate matter effecting air quality, especially during the winter season. Rule 2.40 will limit the emissions of particulate matter, carbon monoxide and other air contaminants by the establishment of the following requirements.

1. No person shall sell, offer for sale, supply or install any wood burning appliance that is not a pellet-fueled wood burning heater, a United States Environmental Protection Agency (US EPA) Phase II Certified wood burning heater, or an appliance or fireplace determined to meet the US EPA particulate matter emission standards of less than 7.5 grams per hour for a noncatalytic wood fired appliance, or 4.1 grams per hour for a catalytic wood fired appliance.
2. All wood burning appliances shall be installed and operated according to the manufacturer's specifications.
3. Retailers selling new wood burning appliances, shall supply public information on proper installation, operation, and maintenance of the wood burning appliance, proper fuel selection and use, health effects from wood smoke, and the proper sizing of wood burning appliances.
4. All wood advertised, described, or represented in any way to be 'seasoned' or 'dry' must have a moisture content of 20 percent or less by weight.
5. The following materials are prohibited to be burned in a wood burning appliance: garbage, treated wood, plastic products, rubber products, waste petroleum products, paints and paint solvents, coal, glossy or colored paper, particle board, any other material not intended by a manufacturer in a solid fuel burning device.

Rule 2.40 is expected to reduce emission of particulate matter by 18.7 tons, and carbon monoxide by 126 tons, the first year in affect. Rule 2.40 will reduce particulate matter and carbon monoxide emissions and is considered to be an action taken to protect the environment. Therefore, Staff have determined that the project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) under Guidelines Section 15308 and have therefore prepared a Notice of Exemption (NOE).

In addition to Rule 2.40, the Yolo-Solano AQMD has prepared a Model Regulation of Wood Burning Appliances Ordinance to be adopted by local jurisdictions for further emission reductions as they deem necessary. The Model Ordinance includes several additional

requirements which can be adopted singly or altogether. The additional Model Regulation Ordinance provisions include the following:

1. *(Insert Agency)* will work in conjunction with the Yolo-Solano AQMD, to provide public notification requesting residents to suspend wood burning activities during poor air quality episodes as determined by the Yolo-Solano AQMD.
2. No person shall sell or transfer property within the *(insert jurisdiction)* which contains a wood heater without first assuring each wood heater included in the real property is in compliance with Rule 2.40 section 301 requirements, or is permanently rendered inoperable or removed.
3. Any wood heater, freestanding or insert, not in compliance with Rule 2.40, shall be removed replaced with a compliant appliance, or rendered inoperable when a remodel or renovation occurs, requiring a building permit, is in the same room as the wood heater, and the valuation exceeds \$3, 500.
4. Effective *(insert date)*, it shall be unlawful to operate any wood heater within the *(insert jurisdiction)* which is not compliant with Rule 2.40 standards. The *(agency)* may grant an exception to this section in case of hardship.

The Yolo-Solano AQMD is dedicated to continuing efforts to improve air quality through public education and sponsoring programs encouraging emission reductions. Currently, the Yolo-Solano AQMD is exploring the establishment of a rebate program for residents upgrading existing wood heaters (1990 and older), to gas or US EPA Phase II compliant appliances, or to residents installing gas or US EPA Phase II compliant appliances in existing fireplaces.

A BACKGROUND

Overview of source category

Wood burning appliances are any device such as a fireplace, fireplace insert, or wood stove, designed to burn solid fuel with a heat input of less than one million British thermal units per hour. The type of fuel used is generally cordwood, pellet fuel, manufactured logs or any other non-gaseous or non-liquid fuel. Devices that burn gaseous fuel exclusively are not considered a wood burning appliance and are exempt from Rule 2.40. Any conversion of a gas appliance to a wood burning appliance is considered to be the installation of a wood burning appliance and will be subject to the requirements of Rule 2.40.

Wood burning appliances are primarily used for aesthetic purposes or to provide space heating in residential homes. They use chimneys or flue pipes to vent products of combustion. The majority of these appliances are used and installed within a building or structure, but some are installed outdoors and can be subject to the requirements of Rule 2.40. The definition of wood burning appliance includes any fireplace, which is defined as any permanent masonry or factory device. Based on these definitions, a fireplace permanently installed outdoors is a wood burning appliance and subject to the requirements

of Rule 2.40, Section 301. A portable outdoor wood burning device, such as a chiminea, would be allowed in the District. In addition, other outdoor portable devices such as fire pits, are not subject to the requirements of Rule 2.40.

Wood smoke emitted from wood burning appliances contains hundreds of chemical compounds including nitrogen oxides, carbon monoxide, organic gases, and particulate matter. The emissions are largely due to incomplete combustion of wood and vary depending on the fuel used, and the stage of combustion.

Many of the compounds can cause serious health problem, especially to sensitive receptors such as children, the elderly, pregnant women, and people with respiratory ailments. Several of these pollutants have demonstrated cancer-causing properties similar to cigarette smoke. Wood smoke exposure can disrupt cellular membranes, depress immune system activity, damage the layer of cells that protect and cleanse the airways, and disrupt enzyme levels. Health impacts include, increased hospital admission for respiratory infections, aggravated asthma, decreased lung function, and other acute respiratory symptoms.

One of the biggest threats from wood smoke is due to the health effects related to particulate matter. Particulate matter from smoke consists of soot or carbon and is very small in size. Particles less than ten microns in size are referred to as PM_{10} and those less than two and a half micron in size are referred to as $PM_{2.5}$ (about 1/20th the diameter of human hair). Particulate matter related to wood smoke is very fine: approximately 96% of the particulate matter in wood smoke is considered PM_{10} , 93% is considered $PM_{2.5}$ and 92% is considered PM_1 . Mounting scientific evidence links particulate matter especially fine particles, to increased mortality rates and hospital and emergency visits due to respiratory illness. This is due to the ability of these fine particles to penetrate and lodge deep into lungs.

The health effects from fine particulate matter prompted the US EPA to adopt a national $PM_{2.5}$ air quality standard. The US EPA anticipates by the end of 2004, they will finalize the designations for the $PM_{2.5}$ standards. Localities with $PM_{2.5}$ above the standard will have to take steps to reduce $PM_{2.5}$ emissions.

Wood smoke is a significant source of fine particulate pollution especially during the fall and winter seasons. During these seasons stagnant air and cold temperatures can trap smoke and other pollutants close to ground level causing particulate matter levels to rise. Higher levels of pollutants at the ground level increases exposure to people in the immediate area. Studies have shown these particles are so fine, they can seep into a home with closed windows and doors. The pollution levels inside a closed house can be up to 70 percent of the levels outdoors.

The California Air Resources Board (ARB) maintains an emission inventory which estimates the amount of pollutant emitted from particular source categories for each District. The 2003 emission inventory for the Yolo-Solano Air District shows a baseline of 0.89 tons of PM_{10} , 0.86 tons of $PM_{2.5}$, and 6.33 tons of CO, emitted per day due to the residential use of fireplaces and wood stoves throughout the year. During the winter season when wood burning activities increase, the numbers change to 1.62 tons of PM_{10} , 1.56 tons of $PM_{2.5}$, and 11.5 tons of CO emitted per day.

II. DISCUSSION OF PROPOSED RULE 2.40 REQUIREMENTS

Listed below is a description of the proposed requirements for Rule 2.40 Wood Burning Appliances.

Section 101 Purpose

The purpose of this rule is to manage the emissions of particulate matter, carbon monoxide, and other air contaminants from wood burning appliances.

Section 102 Applicability

The proposed rule applies to any person who manufactures, sells, offers for sale, operates or installs a wood burning appliance. It also applies to any person who sells, offers for sale or supplies wood intended for burning in a wood burning appliance. Those effected include and are not limited to, owners and potential owners of wood burning appliances, wood appliance retailers & suppliers, home builders and planners, firewood/pellet fuel producers, and hearth products and services including chimney sweeps and repairers, and masonry contractors and suppliers.

The proposed rule is applicable to both new and existing developments. A new development is defined as any residential or commercial building which begins construction after January 2006. This provides a window to allow any project which is already in development to continue as approved. City and County departments in charge of issuing permits will be the point of enforcement for regulating what appliance is approved for installation. The District acknowledges Rule 2.40 does not provide a built in window for projects involving the installation of wood burning appliances in existing residences. The District does not expect the number of pending projects to be significant and therefore the rule will affect existing developments immediately. Any appliance already approved for installation by the applicable department by the date Rule 2.40 goes into effect, the District intends to allow through enforcement discretion.

Section 110 Exemptions

Appliances that are exclusively fired with a gaseous fuel are exempt from Rule 2.40 because they do not burn wood and therefore do not contribute to air pollution attributed with wood smoke. Any conversion of a gas appliance to a wood burning appliance is considered to be the installation of a wood burning appliance and will be subject to the requirements of Rule 2.40.

Cookstoves are exempt from certification under the US EPA requirements set forth in Part 60, Title 40, Subpart AAA Code of Federal Regulations. A Cookstove is defined as a wood-fired appliance that is designed primarily for cooking food and includes an oven with a volume of 1 cubic foot or greater, and an oven rack, a device for measuring oven temperatures, a flame path that is routed around the oven, a shaker grate, an ash pan, an ash clean-out door below the oven, and the absence of a fan or heat channels to dissipate heat from the appliance.

200 Definitions

Rule 2.40 will provide approximately 18 definitions to clarify new terms used in the rule, and to improve overall enforceability and compliance. Many of the definitions were based on definitions from Part 60, Title 40, Subpart AAA Code of Federal Regulations, Bay Area Air Quality Management District's (BAAQMD) Model Ordinance Pertaining to the Reduction of Air Pollution by Regulating the New Construction or Replacement of Woodburning Appliances, Kern County Air Pollution Control District's (KCAPCD) Rule 416.1, Northern Sonoma County Air Pollution Control District's (NSCAPCD) Rule 100, and from San Joaquin Valley Air Pollution Control District's (SJVAPCD) Rule 4901.

300 Standards

- 301 The proposed rule stipulates the types of wood burning appliances that will be allowed to be sold, installed or operated within the District. All wood burning appliances must meet the requirements outlined for certification of wood burning heaters set forth in Part 60, Title 40, Subpart AAA Code of Federal Regulations. Pellet fueled wood burning heaters will be allowed because they are exempt from the US EPA requirements set forth in Part 60, Title 40, Subpart AAA Code of Federal Regulations. Currently the US EPA does not have a certification program for traditional open masonry fireplaces. There are US EPA certified appliances that are labeled as fireplaces by industry. They are actually certified wood stoves built into a wall to look like a fireplace. Any device certified by the US EPA is interpreted by the District to be a wood heater and is addressed in section 301, and is subject to the requirements outlined in Part 60, Title 40, Subpart AAA Code of Federal Regulations. Another category of fireplaces are clean burning fireplaces. These masonry fireplaces have a more efficient combustion design than traditional fireplaces. Some manufacturers of these units report the units meet US EPA standards when tested in a US EPA accredited laboratory. Upon review of the unit and testing information, the APCO can use his/her discretion to allow these units to be installed in the District.
- 302 The proposed rule states all wood burning appliances shall be installed, and operated according to the manufacturer's specifications. This section was added to ensure appliances installed in the District are used as they are intended. Appliances which are installed must operate in accordance with emission standards set forth in Part 60, Title 40, Subpart AAA Code of Federal Regulations. Appliances altered in anyway, may not meet the criteria for certification. These models would therefore not be allowed to operate in the District.
- 303 The proposed rule requires retailers of new wood burning appliances to supply information to the public. The information should be provided to the consumer by the point of sale of a new wood burning appliance. All information distributed will be subject to review and approval by the APCO. The District will maintain pamphlets, brochures, or fact sheets on the topics available to the suppliers. The District is dedicated to informing the public on the health effects of wood smoke and methods to minimize emissions from wood burning appliances. Proper installation, operation,

and maintenance of the wood burning appliance can maximize the performance of the unit. Proper fuel selection and use is also essential to achieve emission standards. The proper sizing of the unit and weatherproofing of the home will lead to a more efficient use of fuel. Responsible burning leads to increased fuel efficiency, and a reduction in emissions from the units.

- 304 The proposed rule requires all wood sold in the District represented as “dry” or “seasoned” wood have a moisture content of twenty percent or less. The type of fuel burned in a wood burning appliance effects the emissions. When wood has more moisture, the heat from the fire is used to burn the excess moisture and flame temperature is not as high. Fires burning at lower temperatures are less likely to burn completely. Incomplete combustion of fuel is the main cause of emissions from a wood fueled fire. Particulate emissions from wood smoke has been correlated to the moisture content of the wood. Burning “dry” or “seasoned” wood reduces emissions from fires.
- 305 The proposed rule prohibits the burning of solid fuel materials other than wood, or products expressly manufactured for starting a fire in a wood burning appliance. This section applies to any fire in an open fireplace or wood burning appliance. The rule lists materials that are not allowed to be burned because they are damaging to air quality and wood burning devices. Burning many of these products release toxic chemicals that can react unpredictably in the environment. Safety and certification testing for wood burning appliances are based on the burning of wood only. None of the safety features, instructions or clearances provided by the manufacturers are valid if the appliance burns any other substance than dry untreated wood.
- 400 Administrative Requirements
- 401 This section specifies that the manufacturer of any wood burning appliance subject to this rule may be required to submit evidence that the appliance is US EPA Phase II certified or can meet the US EPA Phase II standards outlined in Part 60, Title 40, Subpart AAA Code of Federal regulations, or is exempt, upon the APCO’s request. Any wood burning device which can meet the US EPA Phase II standards must be tested in an US EPA accredited laboratory.
- 500 Monitoring and Records
- 501 This section outlines the test methods approved for use to demonstrate compliance with Rule 2.40. It outlines the standard used for determining the air-to -fuel ratio for wood burning appliances.

The APCO can require that ASTM Test Method D 4442-92 be used to calculate wood moisture content in wood advertised as ‘dry’ or ‘seasoned’ wood. The test would be performed by an independent contractor. Using the standardized test would ensure moisture content is calculated in a consistent and reliable matter.

III. COMPARISON WITH OTHER APPLICABLE REGULATIONS AND REQUIREMENTS

Health and Safety Code Section 40727.2 requires districts to compare the requirements of a proposed rule with other air pollution control requirements, including federal regulations, best available retrofit control technology (BARCT), and any other District rule applying to the same equipment or process.

Currently the US EPA regulates standards for the manufacturers of applicable wood burning appliances. Any wood heater with the exception of cookstoves, pellet stoves and fireplaces manufactured for use in the United States must meet the performance standards set forth in Part 60, Title 40 Subpart AAA Code of Federal Regulations. Currently there are no State or Federal regulations regarding residential or commercial use of residential wood burning appliances.

Comparison with BACT Requirements

Health and Safety Code Section 40727.2 requires districts to prepare a written analysis to identify the requirements of a proposed new or amended rule with Best Available Control Technology (BACT) requirements that apply to the same equipment or source type. The California Air Pollution Control Officers Association (CAPCOA) Engineering Managers Rule Development Subcommittee developed guidance on this matter. Under this guidance, it was recommended BACT be interpreted as a District's BACT determination.

Wood burning appliances are not subject Rule 3.1, General Permit Requirements. Wood burning appliances are not a permissible source because of the exemption for residential structures and other equipment, Rule 3.2 section 102 and 113 respectively. Therefore, wood burning appliances are not subject to the requirements of a BACT determination stated in section 208 of Rule 3.4, New Source Review.

IV. IMPACTS OF THE PROPOSED RULE

Emissions Impacts

The majority of emissions from wood burning appliances are from residential uses. In order to estimate the emission reductions from Rule 2.40 it was necessary to approximate the number of wood burning appliances planned to be installed and operated in the District. The District estimated the actual number of housing units expected to be built within the District by contacting Planning and Building Departments throughout the District in conjunction with reviewing projection reports from the Sacramento Area Council of Governments (SACOG) and the Department of Finance. The Departments and Agency reports, stated the number of dwellings built in 2003, and growth expectations over the next few years. The majority of the Departments expected corresponding growth or an increase in growth over the next few years. Therefore the 2003 numbers used are considered by the District to provide a conservative estimate of expected emission reductions.

After the number of residential units was established, the District needed to determine the distribution of wood burning appliances. Staff analyzed data from a wood burning survey conducted by the University of California Berkeley developed in consultation with OMNI consulting services for the California Air Resources Board dated 2002. The survey evaluated

the different types and usages of wood burning appliances specific to the Sacramento Valley. The Yolo-Solano Air District is included in the Sacramento Valley Basin. Results from the survey were assumed to be representative of current housing development trends for installation and operation of wood burning appliances within the District.

The District first determined the projected emissions from houses to be equipped with fireplaces. The Survey reported the percentage of households equipped with a fireplace, the number of active fireplaces, and the average amount of wood used per household with an active fireplace. This information was used in conjunction with the emission factor for wood combustion in residential fireplaces from the EPA AP-42, to estimate emission of particulate matter and carbon monoxide. The results indicated based on information for 2003, 24.5 tons per year of PM₁₀ and 178.7 tons per year are expected to be emitted from new fireplaces constructed in the District the first year the rule is in affect. The emissions reduced over time would compound in correlation with growth trends.

The District then needed to estimate the emissions from wood burning appliances if traditional masonry fireplaces were not constructed, and the other appliances installed were US EPA certified. It first was assumed only a percentage of houses would install a wood burning appliance instead of a gas unit as an alternative to a fireplace. The District then applied the same distribution of appliances to the number of fireplaces expected to be built by normalizing the percentages without fireplaces as an option. The District then applied the usage percentage specific to the appliance. The usage of wood stoves, inserts and pellet stoves are reported to be higher than that of traditional fireplaces. The District then used the information provided by the survey for wood usage specific to the type of appliance. Emission factors from the EPA AP-42 were used to determine emissions for US EPA certified appliances.

The savings in emissions from Rule 2.40 for the first year implemented, are reported to be the projected emissions from houses expected to include traditional fireplaces minus the emissions from wood burning appliances that might be used as an alternative. The results are summarized in Table 1.

Table 1: Emission Reductions from Rule 2.40

Emission reductions reported for the first year Rule 2.40 is implemented.	PM (tons/year)	CO (tons/year)
Emissions from Wood Burning Fireplaces:	24.5	178.7
Emissions from US EPA Phase II Certified Wood Burning Heaters :	5.8	52.7
Total Emission Reduction	18.7	126.0

Cost Effectiveness

Rule 2.40 will mandate the type of wood burning appliances installed for operation in the District. Rule 2.40 does not place any constraints on appliances which exclusively use a

gaseous fuel. Wood burning appliances must either be certified by the US EPA or proven to meet the US EPA Phase II emission standards. Currently, there are a variety of appliance models approved for operation in the District. Products vary in the way they are designed to operate, and in the way they are installed. Some products require zero clearance from surrounding materials, some can be directly vented to the outside in a fashion similar to a dryer, or some require chimneys or flue pipes. Units themselves can be a stand alone appliance, an insert, or included with built in decorative mantels. Therefore the cost for installing an appliance varies due to the features of the appliance, as well as, the labor for installation. Typically, wood burning heaters cost more than gas, propane or electric units, and some manufactured fireplaces. Traditional masonry fireplaces tend to be the most expensive and can range in price depending on size and labor costs. US EPA certified wood burning appliances may cost more initially than some factory built wood burning fireplaces, but increased efficiency and heating capabilities of the units can save the consumer in the long run.

Requirements from Rule 2.40 are not expected to impose financial burdens to the consumer due to the availability of affordable alternatives. It is expected to be beneficial to consumers of wood burning appliances due to the increased efficiency of wood burning units certified by the US EPA.

Socioeconomic Impacts

California Health and Safety Code Section 40728.5 (a) requires the District, in the process of the adoption of any rule or regulation, to consider the socioeconomic impact if air quality or emission limits may be significantly affected. However, districts with a population of less than 500,000 persons are exempt from the provisions of Section 40728.5 (a). The District's population is estimated to be approximately 287,000 and well below the 500,000 person threshold. Therefore, a socioeconomic analysis for this rulemaking is not required.

Incremental Cost Effectiveness

Health and Safety Code Section 40920.6 requires an assessment of the incremental cost-effectiveness for proposed regulations relative to ozone, CO, SO_x, NO_x, and their precursors. Incremental cost-effectiveness is defined as the difference in control costs divided by the difference in emission reductions between two potential control options that can achieve the same emission reduction goal of a regulation. The purpose of Rule 2.40 is to reduce emissions from PM₁₀ and CO. State law does not require attainment plans for particulate matter. The District is currently in attainment of the air quality standards established by the federal Clean Air Act for CO and Particulate Matter.

V. ENVIRONMENTAL IMPACTS OF METHODS OF COMPLIANCE

California Public Resource Code Section 21159 requires the District to perform an environmental analysis of the reasonably foreseeable methods of compliance. The analysis must include the following information for the proposed Rule 2.40:

1. An analysis of the reasonably foreseeable environmental impacts of the methods of

compliance.

2. An analysis of the reasonably foreseeable mitigation measures.
3. An analysis of the reasonably foreseeable alternative means of compliance with the rule or regulation.

TABLE 2. Environmental Impacts, Mitigation Measures, and Alternatives

Compliance Methods	Reasonably Foreseeable Environmental Impacts	Reasonably Foreseeable Mitigation Measures
Installation of approved appliances	Air Quality Impacts: All compliance methods are aimed at limiting emissions of particulate matter, and carbon monoxide.	No mitigation necessary
Proper installation and operation of appliances	Water Impacts: No impact	No mitigation necessary
Advertising wood as seasoned or dry only if it has a moisture content of 20 percent or less by weight	Human Health Impacts: Lower emissions from wood smoke, should reduce emissions of hazardous air contaminants. Improved air quality will have a beneficial impact on human health.	No mitigation necessary
Informing public on methods to reduce emissions	Solid Waste disposal Impacts: No impact.	No mitigation necessary
Burning of materials intended for use in wood burning appliances	Noise Impacts: No impact.	No mitigation necessary

This analysis demonstrates the adoption of Rule 2.40 will not have a significant effect on the environment or humans due to unusual circumstances. In addition, the proposed Rule 2.40 will reduce particulate matter and carbon monoxide emissions and is considered to be an action taken to protect the environment. Therefore, staff have determined that the project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to Section 15308, Actions by Regulatory Agencies for Protection of the Environment. Staff prepared a Notice of Exemption (NOE) to meet the CEQA Guidelines (Attachment B).

VI. REGULATORY FINDINGS

Section 40727(a) of the California Health & Safety Code (H&SC) requires that prior to adopting or amending a rule or regulation, an air district's board make findings of necessity, authority, clarity, consistency, nonduplication, and reference. The findings must be based on the following:

1. Information presented in the District's written analysis, prepared pursuant to H&SC Section 40727.2;
2. Information contained in the rulemaking records pursuant to H&SC Section 40728; and
3. Relevant information presented at the Board's hearing for adoption of the rule.

The required findings are:

Necessity: The proposed rule aims to limit emissions from wood smoke including particulate matter. Health effects from particulate matter especially fine matter, has prompted the US EPA to adopted a national PM2.5 air quality standard. By the end of 2004, the designations for the standard are expected to be determined. The District prefers to use measures which are considered preventative rather than mitigative for compliance purposes.

Authority: The District is authorized to adopt rules and regulations by California Health and Safety Code, Sections 40001, 40702, 40716, 41010 and 41013. (H&SC Section 40727 (b)(2)).

Clarity: District staff have reviewed the proposed rule and determined that it can be easily understood by the affected industry. In addition, the record contains no evidence that the persons directly affected by the rule cannot understand the rule. (H&SC Section 40727(b)(3)).

Consistency: The proposed rule does not conflict with and is not contradictory to, existing statutes, court decisions, or state or federal regulations. (H&SC Section 40727(b)(4)).

Non-Duplication: The proposed rule does not duplicate any state laws or regulations, regarding the attainment and maintenance of state and federal air quality limits. (H&SC Section 40727(b)(5)).

Reference: This rule meets the requirements of Health and Safety Code Sections 40702.

VII. PUBLIC COMMENTS AND STAFF RESPONSES

District Staff visited local wood burning appliance retailers and discussed proposed Rule 2.40. Staff explained YSAQMD's goals for Rule 2.40 and solicited the business' for information on any interested parties to add to Rule 2.40's contact list. Staff also contacted building associations which include Yolo and Solano Counties and requested contact information for any interested party.

Staff held a public workshop on September 23, 2004, to discuss proposed Rule 2.40. Notification was sent to surrounding Air Districts, building/planning/community development departments within the YSAQMD, City Managers within the YSAQMD, all city and county libraries in the YSAQMD, building associations covering both Yolo and Solano counties, industry associations, members of the Yolo and Solano Asthma Coalitions, and any contact who had expressed interest to the YSAQMD. Notification was also sent to all parties listed in the Fairfield, Vacaville, Suisun City, & Dixon, Yolo County, Sacramento River Delta, and Sacramento, Yellow Pages under Fireplace Equipment-Dealers, Fireplace Equipment-Wholesale & Manufacturers, Fireplaces, Firewood, Stoves and Chimney Sweeps. The mailers were also sent to architects listed in the Yolo County, and Fairfield, Vacaville, Suisun City and Dixon Yellow Pages. Finally, notice was sent to manufacturers of 'clean burning fireplaces'.

A copy of the public workshop notice, the preliminary staff report, preliminary draft rule language, and draft model ordinance were posted on the Yolo-Solano AQMD's web page.

A PUBLIC WORKSHOP

The public workshop was attended by three (3) interested Yolo-Solano District residents, one (1) representative from an industry association and manufacturer representative, one (1) manufacturer and retail representative, one (1) City of Davis building/planning representative, one (1) Solano County Building Director, one (1) building association representative, one (1) BAAQMD Public Information Officer, one (1) representative from the Solano Asthma Coalition, and Yolo-Solano AQMD Staff.

District Staff will attempt to paraphrase the verbal comments that were discussed during the workshop and respond to each comment. Following, District will include written comments submitted to the District and respond to the additional comments.

Comment 1. Mark Wood, City of Davis, commented the definition of New Development was unclear. The definition implied construction began when the foundation for the structure is completed.

Response 1. District Staff will clarify the wording of the definition New Development. Construction is considered to begin when the foundation is started.

Comment 2. Tim Townsend, Davis Resident, commented 'reduced' may be a better choice than 'limit' in the stated purpose of Rule 2.40.

Response 2. District staff feel the purpose of Rule 2.40 is to control the increase in emissions from wood burning appliances. The rule may not result in the immediate reductions of emissions from existing wood burning appliances. District staff will clarify the language.

Comment 3. Steve McCartney, Fireplace Products U.S. Inc., asked whether unseasoned wood could be sold in the District if it is not advertised as 'dry' or 'seasoned'.

- Response 3. The District is not restricting the type of wood sold in the District. The District does feel that if a consumer is buying wood advertised as 'seasoned' or 'dry', which would produce less wood smoke, the wood must have a moisture content of less than 20%.
- Comment 4. Emily Hopkins, BAAQMD, asked if the District would receive tests from the laboratory for wood burning appliances showing they are in compliance with Rule 2.40.
- Response 4. The District will not routinely require compliance testing for wood burning appliances approved by the US EPA. Compliance testing would be required for anyone submitting a request to install an appliance not certified by the US EPA in the District. The District reserves the right to request proof that any wood burning appliance installed in the District is compliant with Rule 2.40 if deemed necessary.
- Comment 5. Carlos Silva, Solano County Building Director, asked the District if open hearth fireplaces were going to be allowed in the District.
- Response 5. The District will not allow any new open hearth fireplaces to be constructed in the District, unless evidence is presented to the District the fireplace meets the emission requirements of US EPA Phase II certification, and the APCO has approved in writing the fireplace can be constructed or installed.
- Comment 6. Peter Ross, Home & Hearth Inc. Fireplace Products, and Hearth, Patio, and Barbecue Association Representative, commented it was not clear what criteria the District would use for allowing a non EPA Phase II certified appliance to be installed in the District.
- Response 6. The District will require proof any wood burning appliance not EPA Phase II certified can meet the emission standards of 6.5 grams per hour for a noncatalytic wood fired appliance or 4.1 grams per hour for a catalytic wood fired appliance when considering approval for installation in the District. The APCO will review any testing and background information to determine if the unit will be allowed.
- Comment 7. Peter Ross, Home & Hearth Inc. Fireplace Products, and Hearth, Patio, and Barbecue Association Representative, commented Rule 2.40 should not be too restrictive on the burning of biomass fuels. Emerging technology could result in appliances which are clean burning, fueled with a renewable material.
- Response 7. The District reviewed Rule 2.40 language and feels that Section 305 will allow other renewable materials to be burned so long as they are intended by the manufacturer for use in an approved solid fuel burning device.
- Comment 8. Dave Smith, YSAQMD, commented Rule 2.40 did not address chimineas.

The definition used for wood heaters included a phrase any similar device used for aesthetic or space heating purposes. These outdoor appliances would fall into that category. The Health and Safety Code allows for outdoor recreational burning.

- Response 8. District staff clarified the language in the rule and addressed chimineas specifically in the staff report. The District considers devices such as chimineas to be nonpermanent devices. The definition of wood burning appliance now refers to any fireplace, wood burning heater, pellet-fired wood heater or any similar enclosed device burning any solid fuel used for aesthetic or space-heating purposes. Fireplace by definition in Rule 2.40 refers to any permanently installed device. Chimineas are not enclosed devices or considered permanent and therefore are not subject to the requirements of Rule 2.40. Furthermore, outdoor devices are not generally used during the 'wood burning season' when meteorological conditions compound the problem.
- Comment 9. Peter Ross, Home & Hearth Inc. Fireplace Products, and Hearth, Patio, and Barbecue Association Representative, commented there were many other outdoor wood burning devices such as outdoor fireplaces, conversation pits, pizza ovens, etc.
- Response 9. District staff clarified the language in the rule and addressed outdoor devices. Any fireplace installed outdoors will be subject to the requirements of Rule 2.40. Units would have to be EPA Phase II certified or approved in writing by the APCO. Other nonpermanent devices such as fire pits, are categorized similarly to chimineas and are not subject to Rule 2.40 as explained in Response 8.
- Comment 10. Mark Wood, City of Davis, commented other localities had problems with residents circumventing similar rules. There are examples of people building huge open hearth fireplaces and installing a certified wood burning appliance which could be easily removed.
- Response 10. District staff hopes through education residents will comply with the requirements of Rule 2.40. The District explored possible methods to prevent this occurrence. The District concluded any action taken to require certain size flue pipes or to place similar restrictions on venting or structure could impose serious dangers to residents if they decided to use venting equipment specific to a wood burning heater for an open fire built in a fireplace. Also, the District does not want to limit a resident if they decide they want to use a different type of compliant appliance, and they have permanently installed venting or structure specific to another appliance.
- Comment 11. Steve McCartney, Fireplace Products U.S. Inc., commented Rule 2.40 was not clear whether the material on weatherproofing that retailers would have to distribute referred to weatherproofing of the appliance or home.

Response 11. The District's position during the Public Workshop was the District will require information on generalized weatherproofing of the home to be distributed with the purchase of a wood burning appliance in the District. Information on weatherproofing will hopefully guide residents on the installation of the device, as well as, provide information on how to get the most efficient use from the product. Efficient use of the product will help limit emissions. All information distributed is subject to the approval of the APCO.

After further review, the District will not require the retailers of wood burning appliances to distribute information on methods for weatherproofing the home. They will still be required to distribute information on the remaining topics.

Comment 12. Peter Ross, Home & Hearth Inc. Fireplace Products, and Hearth, Patio, and Barbecue Association Representative, commented retail needed to determine a way to distribute the information.

Response 12. The District is planning to provide the retailers with the information they need to distribute in the form of either pamphlets or sheets which can be easily printed from the District website. All information distributed is subject to the approval of the APCO.

Comment 13. Peter Ross, Home & Hearth Inc. Fireplace Products, and Hearth, Patio, and Barbecue Association Representative, commented the District could have a two step program for the Don't Light Tonight Program. Phase I would allow certified appliances to burn wood, and Phase II would not allow any wood burning appliances to operate. This would provide incentive for residents to upgrade older appliance to certified appliances.

Response 13. The District's Don't Light Tonight program is voluntary and requests residents not to burn. The advisory asks residents that if they must light to do it right. The first suggestion is to use gas inserts or EPA-certified wood and pellet stoves. The District did not have any Don't Light Tonight advisories in the last year and had only three the year before that. Due to the infrequency they are called, at this point the District does not feel having a two step program would serve as an incentive to upgrade an older appliance. The District will continue to support the use of EPA-certified appliances and look into establishing programs that would provide incentive for upgrading older appliances.

Comment 14. Mark Wood, City of Davis, commented it would be difficult for city/county departments to regulate the replacement or removal of non-certified wood burning heaters during the time of remodel or renovation under the conditions listed in the Model Ordinance. He suggested the District determine a valuation as the criteria for replacing or removing a non-compliant appliance.

Response 14. District staff amended the wording in the section of the Model Ordinance

addressing the replacement of noncompliant wood heaters during the time of remodel or renovation to make adoption and enforcement more likely. The District modified the criteria used in this section to refer to any remodel or renovation in the same room as the appliance, requiring a building permit, and the valuation exceeds \$3,500. Agencies adopting the Ordinance can adjust the wording or values as they deem appropriate.

Comment 15. Tim Townsend, Davis resident, commented The Davis Enterprise should be included in District public outreach. He also suggested public outreach information should have a link on the homepage of the District website.

Response 15. The District noted the comment and will incorporate The Davis Enterprise in the public notification process for the Public Hearing.

B. WRITTEN COMMENTS

Letters were submitted to the District from Davis residents expressing concern that Rule 2.40 does not place enough restrictions on wood burning. The letters are included in their entirety in Attachment D.

Response. The District encourages residents to appeal to their local governing board to adopt more restrictive measures such as those presented in the Model Ordinance. The Ordinance outlines feasible measures cities can take to further reduce emissions from wood burning appliances, including measures which would require wood heaters to be upgraded or removed during point of sale, certain remodels and renovations, and a measure that would establish a sunset date for operating noncompliant wood heaters.

The Yolo-Solano AQMD covers all cities and unincorporated areas of Yolo County as well as some cities and unincorporated areas of Solano County. The District strives to adopt rules which are fair and inclusive to the needs and capabilities of the District as a whole. The District believes Rule 2.40 effectively serves the District.

Furthermore, the District is committed to informing the public and making residents aware of air quality issues. The District believes education aimed especially at children, can have very meaningful effects in the decisions they will make that can impact air quality. The District hopes to continue to bridge communications between the public and regulatory agencies.

A letter was submitted from a Vacaville resident expressing concern that Rule 2.40 is not appropriate. The letter is included in Attachment D.

Response: The Yolo-Solano AQMD is, by law, required to achieve and maintain healthful air quality for its residents. The District does not believe air purifying units sold for the home are effective tools for combating the air quality problems addressed in Rule 2.40. Wood burning appliance emissions affect both outdoor and indoor air quality. The District believes the best way to control

emissions, and maintain healthful air quality, is by promoting the use of clean burning appliances.

Restrictions placed on the installation or operation of wood burning appliances (i.e. fireplaces or wood heaters), are for any new wood burning appliances installed. Rule 2.40 does not apply to the operation of any wood burning appliance already installed: nowhere in Rule 2.40, does it state a resident can not use a wood burning appliance already installed.

All wood burning appliances that will be installed must be certified by the US EPA, guarantying the unit meets the requirements set forth in Part 60, Title 40 Subpart AAA Code of Federal Regulations. The District is confident the US EPA Phase II certification process is inclusive of many checks and balances to uphold the integrity of the Agency. Also, the certification process assures the consumer is benefitted by assuring wood burning appliances are efficient and clean burning.

The District developed a Model Ordinance with additional measures, that cities have the option of adopting for further emission reductions as they deem necessary. Cities can adopt none or any number of the additional provisions. The Model Ordinance includes a voluntary Don't Light Tonight Program, requires wood heaters not EPA Phase II certified to be replaced at the time of property transfer, or during certain remodels or renovations, and establishes a sunset date for the operation of non EPA Phase II certified wood heaters. Wood heaters as defined in Rule 2.40, are not inclusive of open hearth fireplaces.

A letter was submitted on behalf of the Hearth, Patio, and Barbeque Association, expressing support for Rule 2.40. The letter is included in Attachment D.

Response: The District thanks the HPBA for supporting the general principles of Rule 2.40 and the Model Ordinance. The District is dedicated to continuing efforts to improve air quality through public education and sponsoring programs encouraging emission reductions. The District will continue to provide information to the public regarding health effects of smoke and responsible burning. The District recognizes that increased efficiency in newer EPA Phase II certified wood burning appliances translates to less emissions from wood smoke. The District will continue to pursue the establishment of a program for upgrading older units or existing open fireplaces. In conclusion, the District believes the changes to the proposed rule language will clarify the District's position on wood burning appliances used outdoors.

VIII. REFERENCES

1. American Lung Association, Selected Key Studies on Particulate Matter & Health

- 1997-2001 (March 5, 2001).
2. American Lung Association, Wood Burning (April 2000).
3. California Code of Regulations, Part 60, Title 40, Subpart AAA Section.
4. BAAQMD A Model Ordinance Pertaining to the Reduction of Air Pollution by Regulating the New construction or Replacement of Woodburning Appliances (1998).
5. KCAPCD Rule 416.6, Wood-Burning Heaters and wood-Burning Fireplaces
6. MARAMA Emission inventory Improvement Program (EIIP) Residential Wood Combustion Coordination Project (October 13, 2003)
7. NSCAPCD 4-1Rule 100, Control Measure For Wood Fired Appliance Emissions.
8. OMNI Consulting Services, Inc. Results of Wood Burning Survey-Sacramento, San Joaquin, and San Francisco Areas, University of California Berkeley/California Air Resources Board -GIS Study (January 2003).
9. OMNI Environmental Services, Inc. Residential Wood Combustion, prepared for WESTAR PM_{2.5} Emission Inventory Workshop (July 22-23, 1998)
10. SACOG Projections (March 15, 2001).
11. SJVAPCD Final Draft Staff Report, Amendment to Rule 4901, Wood Burning Fireplaces and Wood Burning Heaters (June 19, 2003).
12. SJVAPCD Rule 4901, Residential Wood Combustion (Adopted July 15, 1993 amended July 17, 2003).
13. SLOAPCD Rule 504, Residential Wood Combustion (Adopted October 19,1993)
14. State of California. California Air Resources Board, 2003 Emission Inventory.
15. State of California. California Air Resources Board, ARB Miscellaneous Process Methodologies, Section 7.1 Residential Wood Combustion (Revised July 1997).
16. State of California. California Air Resources Board, California Air Pollution Control Laws 2003 Edition.
17. State of California. Department of Finance, County Population and Housing Estimates (Revised January 1, 2003).
18. U.S. Environmental Protection Agency, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources-AP-42. 1.9 Residential

Fireplaces -Final Section Supplement B (October 1996).

19. U.S. Environmental Protection Agency, Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources-AP-42. 1.10 Residential Woodstoves -Final Section Supplement B (October 1996).

ATTACHMENT A

PROPOSED RULE 2.40, WOOD BURNING APPLIANCES

PROPOSED RULE 2.40 WOOD BURNING APPLIANCES

Adopted (December 8, 2004)

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100 GENERAL

101 **PURPOSE:** To manage the emissions of particulate matter, carbon monoxide, and other air contaminants from wood burning appliances.

102 **APPLICABILITY:** This rule applies to the following:

102.1 Any person who manufactures, sells, offers for sale, operates or installs a wood burning appliance.

102.2 Any person who sells, offers for sale, or supplies wood intended for burning in a wood burning appliance.

110 **EXEMPTIONS - GENERAL:** The provisions of this rule shall not apply to the following:

110.1 Appliances that are exclusively fired with a gaseous fuel.

110.2 Cookstoves.

200 DEFINITIONS

201 **AIR POLLUTION CONTROL OFFICER (APCO):** The Air Pollution Control Officer of the Yolo-Solano Air Quality Management District, or his or her designee.

202 **COOKSTOVE:** Any wood fired appliance primarily for cooking food as described in Code of Federal Regulations 60.531.

203 **EXISTING DEVELOPMENT:** Any residential or commercial, single or multi-building unit, for which construction is complete.

204 **FIREPLACE:** Any permanently installed masonry or factory built device designed to operate at an air-to-fuel ratio greater than or equal to 35-to-1.

205 **GARBAGE:** Any solid, semisolid, and liquid wastes generated from residential, commercial, and industrial sources, including trash, refuse, rubbish, industrial wastes, asphaltic products, manure, vegetable or animal solid or

- semisolid wastes, and other discarded solid or semisolid wastes.
- 206 **MANUFACTURER:** Any person who constructs or imports a wood burning appliance.
- 207 **NEW DEVELOPMENT:** Any residential or commercial, single or multi-building unit, which begins construction on or after January 1, 2006. Construction begins when the foundation for the structure is started.
- 208 **PAINTS:** Any exterior and interior house and trim paints, enamels, varnishes, lacquers, stains, primers, sealers, undercoatings, roof coatings, wood preservatives, shellacs, and other paints or paint-like products.
- 209 **PAINT SOLVENTS:** All original solvents sold or used to thin paints or to clean up painting equipment.
- 210 **PELLET-FUELED WOOD BURNING HEATER:** Any wood burning heater which operates on pellet fuel and is either U.S. EPA-certified or is exempted under U.S. EPA requirements set forth in Part 60, Title 40, Subpart AAA Code of Federal Regulations.
- 211 **SEASONED WOOD:** Wood of any species that has been sufficiently dried so as to contain 20 percent or less moisture by weight.
- 212 **SOLID FUEL:** Any wood or any other non-gaseous or non-liquid fuel.
- 213 **TREATED WOOD:** Wood of any species that has been chemically impregnated, painted, or similarly modified to improve resistance to insects or weathering.
- 214 **U.S. EPA:** The united States Environmental Protection Agency.
- 215 **U.S. EPA Phase II Certified:** Any appliance certified by the U.S. EPA, that the unit meets the performance standards set forth in Part 60, Title 40 Subpart AAA Code of Federal Regulations.

216 **WASTE PETROLEUM PRODUCT:** Any petroleum product other than gaseous fuels that has been refined from crude oil, and has been used, and as a result of use, has been contaminated with physical or chemical impurities.

217 **WOOD BURNING APPLIANCE:** Any fireplace, wood burning heater, or pellet-fired wood heater, or any similar enclosed device burning any solid fuel used for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

218 **WOOD BURNING HEATER:** An enclosed, wood burning appliance capable of and intended for space heating as described in Code of Federal Regulation 60.531(i.e. a wood stove or fireplace insert).

300 **STANDARDS**

301 **WOOD BURNING APPLIANCES:** No person shall sell, offer for sale, supply or install any wood burning appliance in a new or existing development that is not one of the following:

301.1A pellet-fueled wood burning heater.

301.2A U.S. EPA Phase II Certified wood burning heater.

301.3An appliance or fireplace determined to meet the U.S. EPA particulate matter emission standard of less than 7.5 grams per hour for a noncatalytic wood fired appliance or 4.1 grams per hour for a catalytic wood fired appliance and is approved in writing by the APCO.

302 **OPERATION OF WOOD BURNING APPLIANCES:** All wood burning appliances shall be installed and operated according to the manufacturer's specifications. Any U.S. EPA approved wood burning appliance which has been altered, installed, or disassembled in anyway not specified by the manufacturer, or is operated in any manner that would result in emissions exceeding the U.S. EPA standard set forth in Part 60, Title 40, Subpart AAA Code of Federal Regulations, shall be considered a non U.S. EPA compliant appliance.

303 PUBLIC INFORMATION: Retailers selling or offering for sale new wood burning appliances, shall supply public education information with each sale of a wood burning appliance in the form of pamphlets, brochures or fact sheets on the following topics:

303.1 Proper installation, operation, and maintenance of the wood burning appliance,

303.2 Proper fuel selection and use,

303.3 Health effects from wood smoke, and

303.4 Proper sizing of wood burning appliances.

Public information shall be subject to the review and approval of the APCO.

304 FUEL LIMITATIONS: No person shall sell, offer for sale, or supply any wood which is orally, or in writing, advertised, described, or in any way represented to be "seasoned" or "dry" wood unless the wood has a moisture content of 20 percent or less by weight.

305 PROHIBITED FUEL TYPES: Except for commercial products expressly manufactured for starting a fire in a wood fired appliance, no person shall cause or allow any of the following materials to be burned in a wood burning appliance:

305.1 Garbage,

305.2 Treated wood,

305.3 Plastic products,

305.4 Rubber products,

305.5 Waste petroleum products,

305.6 Paints and paint solvents,

305.7 Coal,

305.8 Glossy or colored paper,

305.9 Particle board,

305.10 Any other material not intended by a manufacturer for use as fuel in a solid fuel burning device.

400 ADMINISTRATIVE REQUIREMENTS

401 COMPLIANCE REPORT: Upon request, a manufacturer shall submit to the Air Pollution Control Officer a Compliance Report that demonstrates compliance with Section 301 of this Rule for each wood burning appliance subject to the provisions of this Rule or claiming exemption. The report shall contain all the following information.

401.1 General Information:

- i. Name and address of manufacturer,
- j. Product model identification
- k. Description of the model

401.2 Test Report:

- IV All compliance test procedures and results for each model, and
- IV All calculations for determining compliance of each model, or
- IV Explanation of the reason the product is exempt from U.S. EPA certification or is classified as a non-affected facility.

500 MONITORING AND RECORDS

501 TEST METHODS: The test methods listed below are approved for use to demonstrate rule compliance.

501.1 Air-to-fuel ratio: The standard for determining air/fuel ratios for combustion in wood burning appliances is U.S. EPA's test procedure set forth in Part 60.534, Title 40, Code of Federal Regulations.

501.2 Moisture Content: Moisture content of wood shall be determined by the American Society for Testing and Materials (ASTM) Test Method D 4442-92.

ATTACHMENT B

NOTICE OF EXEMPTION FROM CEQA GUIDELINES

Notice of Exemption

To: ? Office of Planning and Research
1400 Tenth Street., Room 121
Sacramento, CA 95814

? County Clerk
County of Yolo
625 Court Street Room 105
Woodland, CA 95695

? County Clerk
Solano County
600 Texas Street
Fairfield, CA 94533

From: Yolo-Solano Air Quality Management District
1947 Galileo Court, Suite 103
Davis, CA 95616

Project Title: Adoption of Rule 2.40- Wood Burning Appliances

Project Location: Yolo-Solano Air Quality Management District

Project description: Rule 2.40 will minimize emissions of particulate matter, carbon monoxide, and other air contaminants from wood smoke, by requiring all wood burning appliances installed, to be EPA Phase II certified or approved by the APCO. Rule 2.40 requires the appliances to be installed and operated according to manufacturers specifications. In addition, Rule 2.40 will require retailers to provide public information materials to consumers on topics related to the health effects from wood smoke and methods to minimize wood smoke from appliances. Rule 2.40 also requires firewood advertised as seasoned or dry to have a moisture content of twenty percent or less by weight, and prohibits the burning of materials not intended for use in wood burning appliances.

Name of Public Agency Approving Project: Yolo-Solano Air Quality Management District

Name of Person or Agency Carrying Out Project: Yolo-Solano Air Quality Management District

Exempt Status:

G Ministerial

G Emergency Project

? Categorical Exemption (CEQA Guidelines Section 15308, Action by Regulatory Agency for Protection of the Environment)

G Statutory Exemption

Reason why project is exempt: The adoption of Rule 2.40 is an action taken to protect the environment and is therefore exempt from CEQA because it constitutes a Class 8 categorical exemption pursuant to CEQA Guidelines 15308.

Lead Agency Contact Person: Mat Ehrhardt, Interim Air Pollution Control Officer

Telephone Number: (530) 757-3650

Signature: _____ **Date:** _____ **Title:** _____

ATTACHMENT C
RESOLUTION NO. 04-11

RESOLUTION NO. 04-11

**RESOLUTION ADOPTING YOLO-SOLANO AIR QUALITY MANAGEMENT DISTRICT
RULE 2.40, WOOD BURNING APPLIANCES**

WHEREAS, California Health and Safety Code section 40702 provides that an air quality management district shall adopt rules and regulations as may be necessary or proper to execute the powers and duties granted to, and imposed upon, the district by Division 26 of the Health and Safety Code; and

WHEREAS, Health and Safety Code section 40727 provides that before adopting, amending, or repealing a rule or regulation, a district board shall make findings of necessity, authority, clarity, consistency, nonduplication, and reference, based upon information developed pursuant to section 40727.2, information in the rulemaking record maintained pursuant to section 40728, and relevant information presented at the public hearing required by section 40725; and

WHEREAS, section 15308 of the CEQA Guidelines provides that actions taken by regulatory agencies as authorized by state law to assure the maintenance, restoration, or enhancement of the environment where the regulatory process involves procedures for protection of the environment, are categorically exempt from CEQA review (Class 8 Categorical Exemption); and

WHEREAS, air pollution is a major public health concern in California, and can result in significant economic costs and negative impacts on our quality of life; and

WHEREAS, the State of California Air Resources Board (ARB) adopted a particulate matter (PM₁₀) Ambient Air Quality Standard (AAQS) in December 1982, and levels for the PM₁₀ AAQS were selected pursuant to California Code of Regulations Title 17 Section 70200 to protect the health of people who are sensitive to exposure to fine particles; and

WHEREAS, the health effects from fine particulate matter prompted the EPA to adopt a national PM_{2.5} air quality standard; and

WHEREAS, wood smoke from wood burning appliances contains particulate matter, carbon monoxide, and other air contaminants, and poses health risks to the public; and

WHEREAS, the adoption of Rule 2.40 will reduce the impact from air contaminant emissions, especially fine particulate matter emissions, from wood burning appliances; and

WHEREAS, the proposed rule language has been reviewed and commented upon by a variety of sources including district residents, city and county agencies, wood burning appliance manufacturers and retailers, and industry associations.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Yolo-Solano Air Quality Management District hereby finds, authorizes, directs and declares as follows:

1. The Board of Directors has considered and hereby adopts by reference the staff report prepared in this matter.
2. The Board of Directors makes the following findings pursuant to Health and Safety Code section 40727:
 - a. Necessity: Information in the District's rulemaking record maintained pursuant to Health and Safety Code section 40728 demonstrates a need for adopting District Rule 2.40;
 - b. Authority: Health and Safety Code section 40702 permits the District to adopt District Rule 2.40;
 - c. Clarity: District Rule 2.40 is written so that its meaning can be easily understood by the persons directly affected by it;
 - d. Consistency: District Rule 2.40 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations;
 - e. Nonduplication: District Rule 2.40 does not impose the same requirements as an existing state or federal regulation;
 - f. Reference: By adopting District Rule 2.40, the District meets the requirements of Health & Safety Code Sections 40702.
3. The Board of Directors finds that the District has complied with the procedural requirements set forth in Chapters 6 and 6.5 of Part 3 of Division 26 of the Health and Safety Code.
4. The Board of Directors finds that adopting District Rule 2.40 is an action taken by a regulatory agency as authorized by state law to assure the maintenance, restoration, or enhancement of the environment where the regulatory process involves procedures for protection of the environment, and is therefore categorically exempt from CEQA review as a Class 8 Categorical Exemption.
5. The Board of Directors hereby adopts, "Wood Burning Appliances," as set forth in Exhibit 1 (Attachment A of the Staff Report), which is attached and incorporated by reference. The adoption is effective December 08, 2004.

PASSED AND ADOPTED by the Board of Directors of the Yolo-Solano Air Quality Management District this 8th day of December, 2004, by the following vote:

Ayes:

Noes:

Absent:

Abstain:

Marci Coglianese, Chair
Board of Directors
Yolo-Solano Air Quality Management District

Attest:

Approved as to Form:

Kay Mahorney, Clerk
Board of Directors

Hope Welton, District Counsel

ATTACHMENT D
WRITTEN COMMENTS RECEIVED

September 23, 2004

Yolo-Solano Air Quality Management District
1947 Galileo Court, Suite 103
Davis, California 95616

From: Paul Hensleigh, Supervising Air Quality Engineer

Subject: Rule 2.40 (Wood-Burning Appliances)

After reading proposed Rule 2.40, we are concerned it doesn't go far enough. Health-conscious Davisites are enduring progressively worse wintertime air quality due to both population growth and, as natural gas prices rise, the increasing reliance on wood for heating.

There is a growing body of evidence that the negative consequences of wood-related particulates, CO, and organic gas emissions are significant. On the most vulnerable nights, our neighborhoods become blanketed with a choking haze of unhealthful air. While appeals to citizens to voluntarily exercise restraint were an understandable first step, programs such as the Don't Light Tonight and Spare-the-Air advisories, hanging banners, and calendar contests have not been heeded enough to have any meaningful effect.

The proposed Rule 2.40 only targets wood-burning appliances in new construction and possibly re-sales. This implies today's air quality is an acceptable baseline. We contend the opposite, and propose the district assist Davis in the following ways:

- Draft a mandatory no-burn night rule, as implemented in other California locales.
- Establish a "Turn-in-your-wood-stove" type of heating system upgrade program (similar to what's been implemented in Truckee, where residents are offered \$176-\$300 incentives to switch to natural gas or at least EPA-certified wood stoves). The program would be self-funded via a modest \$100 annual municipal wood-burning appliance fee administered by the city of Davis. Residents could avoid paying the fee by agreeing not to use their outdated stoves, or by upgrading to approved appliances. Compliance could be enhanced by implementing a substantial fine of perhaps \$500 per violation, with exceptions granted during emergencies such as power outages or home heating equipment failure.
- Install at least one particulate (PM 2.5) and CO monitoring station at a representative neighborhood location to better gauge air quality trends where asthmatics and other sensitive populations live. It seems behind the curve to find the YSAQMD does not yet have a monitoring station in Davis. It is also unfortunate that the affiliated Air Resource Board station is located well outside the city limits in an agricultural area, far too distant from any neighborhood to capture the highly localized effects of wood smoke pollutants.

Sincerely,

Tim Townsend
Davis

Tobin Booth
Davis

Cilly Butler
Davis

Dr. Shawn Smallwood
Davis

Maritta Bernoco
(MARIETTA BERNUCO)
DAVIS

Dr. & Mrs. D. Bernoco
1002 Deodern Ct.
Davis, CA 95616

RECEIVED OCT 04 2004

Oct. 1, 04

Yolo-Solano Air Quality Management District
1947 Galileo Court, Suite 103
Davis, CA 95616

Attention: Paul Hensleigh, Supervising Air Quality Engineer
Subject:
Air Pollution from Wood Burning Appliances in Davis

On Sept 23, 04, I (Marietta Bernoco) attended the Public Workshop on the Adoption of Rule 2.40, Wood Burning Appliances. Rule 2.40 was discussed in great detail, however, its adoption, although appreciated, will only help in the future and does not help in our present situation.

As Davis citizens for 22 years and now retired, we have become increasingly sensitive to pollution from excessive wood burning in our neighborhood. Davis has many of such pollution pockets in wintertime due to old wood burning appliances, use of unseasoned wood and irresponsible burning practices. As it is well known, typical winter conditions of little or no wind in conjunction with the inversion layer prevent the pollution from escaping and instead concentrate it. As a result many Davis citizens are suffering.

For many years the nasty health hazards of wood smoke have been described and are well known in all their details, but to our dismay, authorities have not done anything substantial to protect us. Appeals to users of wood burning appliances to voluntarily reduce the resulting pollution and NO BURN DAYS have had little to no effect. Talking to our neighbors or pointing out the dangers of breathing wood smoke in letters to the Enterprise made no difference.

After this experience, the only logical steps to take are mandatory rules (e.g. an ordinance) that result in cleaner air and that are enacted as soon as possible and enforced by both the City and Yolo-Solano AQMD. We cannot emphasize enough that we are dealing with well-known health hazards that Davis citizens are exposed to and the City in conjunction with AQMD ought to be responsible to protect us.

Sincerely,


Dononico Bernoco


Marietta Bernoco

Yolo-Solano Air Quality Management District
1947 Galileo Court ste 103
Davis Ca 95616
530 757-3650 fax 530 757-3670
Matt Ehrhardt@ysaqmd.org

Oct. 7, 2004

RE: Rule 2.40 Wood Burning Appliances

Mr. Ehrhardt and all board members,

I believe that the approach you people are about to take to combat particulate matter air pollution problem is all wrong.

The proactive answers are from private companies. Sharper Image Ionic Breeze, the Greek electronic air purifier, these units work great. I have one of each. The advertising for these is everywhere. YOU SHOULD BE PROMOTING THIS.

Asthma can be cured. Read Lifesaving Cures by Dr. Cass Ingram 800 243-5242

Worst thing about this rule is last item on your sheet Sept. 23, 2004.
It shall be unlawful to operate any non-compliant wood heater after effective date is established.

Who is to determine what is compliant? This opens the door for us the people to be tipped off by some bureaucrat. How much money is PG&E putting behind this effort?

If you find some one dumb enough to try and enforce this, That person and all of you will be come know the force of Title 42 U.S. Code Section 1983

Because I did a great job of insulating my house with cellulous fiber I can maintain 65 degrees F in the living room with two light bulbs and the TV on. However I used my fireplace about 12 times last winter, and I expect to use it about the same this year.

Don't tread on me,



Robert Barnes
662 Carson Ct
Vacaville Ca 95687

FROM :

FAX NO. : 9164414915

Oct. 07 2004 01:55PM 01

Yolo Solano AQMD
1947 Galileo Ct. Suite 103
Davis, CA 95616

Re Rule 2.40 Wood Burning Appliances

Attn: Paul Hensleigh, Nancy Fletcher, and staff.

I would like to submit the following comments on behalf of the Hearth Patio and BBQ Association (HPBA), regarding Rule 2.40 and the proposed Model Ordinance for wood burning appliances.

The HPBA Pacific supports the general principals and intent of rule 2.40 and the model ordinance. We fully support the effort to mitigate particulate air pollution in new construction and implementation of programs to promote the upgrade of existing wood burning appliances and stoves.

We encourage the air district to look for funding for a change-out program for existing pre-EPA stoves. A majority of the particulates associated with fireplaces come from pre EPA fireplaces. We have always supported and participated in such programs in the past.

We feel that it is important to educate the public regarding the advantages, both in health and performance, of upgrading older stoves and fireplaces to clean EPA certified wood burning appliances, pellet stoves, and gas appliances. We believe that a great many stoves and fireplaces will be upgraded voluntarily with a good education program.

In the case of outdoor fireplaces we suggest a wood burning fireplace with an affixed gas log, should be considered a gas appliance.

We would urge the importance of being careful that the press in reporting this program does not give the false impression that people can not burn their fireplaces.

Peter Ross

10/7/04

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