

**PROPOSED ADOPTION OF  
RULE 433 RICE STRAW EMISSION REDUCTION CREDITS**

**STAFF REPORT**

Date of Release:  
July 28, 2010

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### **Public Hearing Date**

- Thursday, August 26, 2010 at 10:00 a.m. Chico City Council Chambers, 421 Main Street, Chico, CA 95928

### **Schedule of Meetings**

- Date of Public Workshop: 3:00 p.m., Thursday, August 12, 2010, District Offices, 2525 Dominic Drive, Suite J CA.

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Proposed Rule 433, *Rice Straw Emission Reduction Credits*

Date of Release: July 28, 2010

Scheduled Date of Adoption: August 26, 2010 at 10:00 a.m. in the Chico City Council Chambers, 421 Main Street, Chico, CA

	<u>Table of Contents</u>	<u>Page</u>
I.	EXECUTIVE SUMMARY.....	4
A.	BACKGROUND.....	5
II.	DISCUSSION OF PROPOSED RULE 433 REQUIREMENTS .....	9
III.	COMPARISON TO OTHER APPLICABLE REGULATIONS AND REQUIREMENTS .....	10
IV.	IMPACTS OF THE PROPOSED RULE .....	10
V.	ALTERNATIVES .....	11
VI.	ENVIRONMENTAL REVIEW AND COMPLIANCE.....	11
VII.	REQUIRED FINDINGS.....	12
VIII.	PUBLIC COMMENTS AND STAFF RESPONSES .....	12
IX.	REFERENCES.....	13
ATTACHMENT A	PROPOSED RULE 433, RICE STRAW EMISSION REDUCTION CREDITS	
ATTACHMENT B	PUBLIC NOTICE	
ATTACHMENT C	DRAFT RESOLUTION NO. 2010-19	

## I. EXECUTIVE SUMMARY

On August 26, 2010, the Butte County Air Quality Management District (District) Governing Board will consider the proposed adoption of Rule 433, *Rice Straw Emission Reduction Credits*. This rule establishes procedures which ensure federal recognition of the banking of Emission Reduction Credits (ERCs) resulting from the permanent reduction of open field burning of rice straw.

The main requirements for Rule 433 will be:

1. An application will be required to bank ERCs under this program. Applying for rice straw ERCs is voluntary; only those growers who wish to receive an ERC certificate need to apply. There will be two (2) types of applications: new applications and re-certification applications. Those parties who previously applied to bank rice straw ERCs may apply to “re-certify” their request for certificates. Any other parties who can substantiate that they grew rice during the 1988 - 1992 baseline period may submit a “new” banking application to obtain credits.
2. All applications must be received within 4 months of rule adoption. This schedule is necessary to ensure review and issuance of the ERCs prior to any modeling demonstration for attainment purposes.
3. Each applicant must show that the property for which the application is submitted grew and burned rice in the baseline period between 1988 and 1992.
4. Each applicant must show that the property for which the application is submitted is limited by deed restriction to burning in any calendar year no more than 25% of the rice growing acreage.

This rule is expected to affect landowners whose parcels grew rice during the baseline period of 1988 to 1992. In our District, there were 37 parties who previously applied to bank ERCs from this source category.

It is expected that most (if not all) of the parties with rice straw ERCs will re-apply to gain federally enforceable certificates in accordance with this rule. In addition, the program will be available to other landowners who either did not know about the program previously or who previously chose not to participate in the program. The District does not know how many other new parties might apply to bank credits, but expect this to be a very small number.

The proposed rule will neither have a significant or detrimental effect on the environment. The adoption of Rule 433 is an action taken by a regulatory agency to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment.

## A. BACKGROUND

### Overview of source category

Rice straw burning in the Sacramento Valley was “phased down” pursuant to state law adopted in 1991 (California Health & Safety Code 41865). The District has previously accepted applications for ERCs from rice straw burning; however, the District lacked an acceptable rule approved by the United States Environmental Protection Agency (EPA) and the application reviews were not completed. If issued, the EPA would not have recognized the credits as being valid offsets for “federal purposes” (i.e. for major modification projects or new major stationary sources).

The District participated in meetings to develop the model rule by the Sacramento Federal Non-Attainment Area (SFNA). The SNFA have worked in conjunction with the Sacramento Valley Basin Control Council (BCC) and the California Rice Commission to address all concerns and comments raised by the California Air Resources Board (ARB) and the US EPA. This working group created a white paper and model rule, upon which this local rule is based on.

The ERC model rule developed by the SFNA group utilized district reports and records to determine the average number of acres planted during the period 1980 until 1992 and then used this data to determine an actual baseline year from the 1988 to 1992 period that most closely represented this historical average. The process used is documented in the “White Paper” developed to document the rule process approved by ARB and EPA in 2008. Based on historic burn records for Butte County, the historical average acres planted for the ten year period is 83,873 acres. The following table shows the acres planted and the acres burned for the baseline period:

Rice Year	Total Rice Acres Burned	Total Rice Acres Planted*
1981		114500
1982		106000
1983		61200
1984		86300
1985		72000
1986		70000
1987		83000
1988	74868	86,061
1989	67665	85,000
1990	74385	88,750
1991	69142	70,900
1992	49551	82,775
Averages		83874

\* USDA

When developing the procedures to determine total amount of acres available for banking (White Paper, 2008), the other districts evaluated the average number of acres planted and, based on records available, chose a “representative year” to set the baseline for available acres. Butte County reviewed records (data above) and chose 1991 as the representative year and submitted this data in the emissions inventory work in 2005. The total acres burned in 1991 was considerably less than those in 1988 and 1990. Since the number of acres planted versus burned is about equal and maintains a historic burn fraction of 1.00, the District determined to use 1991 to be conservative and limit the maximum amount of credits which can be issued on a District wide basis. The District can calculate the total annual rice straw burning emissions, total annual rice straw burning emissions eligible for banking, estimated quarterly distribution, and the amount of VOC and NO<sub>x</sub> credits eligible for banking that need to be included in the 8-hour ozone and 24-hour PM<sub>2.5</sub> State Implementation Plan (SIP) attainment demonstrations.

Assumptions:

The emission factors (sometimes referred to as Jenkins II emission factors) come from an ARB memo, which was originally released August 17, 2000 and updated September 12, 2000. The factors in the memo are cited as being predominately from Bryan Jenkins’ “Atmospheric Pollutant Emission Factors from Open Burning of Agricultural and Forest Biomass by Wind Tunnel Simulations”, 1996, UC Davis. The units of the emission factors are pounds of emissions per ton of rice burned and fuel loading in tons of fuel per acre grown. The base loading is 3 tons per acre resulting in the following Emission Factors.

<b>Pollutant</b>	<b>Emission Factor (lbs/acre)</b>
Volatile Organic Compounds (VOC)	14.1
Nitrogen Oxides (NO <sub>x</sub> )	15.6
Carbon Monoxide (CO)	172.2
Particulate Matter less than 10 microns (PM <sub>10</sub> )	18.9
Particulate Matter less than 2.5 microns (PM <sub>2.5</sub> )*	17.7
Sulfur Oxides (SO <sub>x</sub> )	3.3

\* PM<sub>2.5</sub> is a subset of PM<sub>10</sub> and constitutes 94% of the PM<sub>10</sub> emissions.

The quarterly burn fractions (from the Manual of Procedures (MOP)) are slightly different for

each district with rice straw burning. For Butte County, the historical percentages are as in the following table and has been included in proposed Rule 433:

Quarterly burn fraction				
District	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
Butte County	27%	44%	3%	26%

Total annual rice burning emissions:

The emissions are then calculated as follows:

$$\text{Emissions} = \text{Acres Burned} \times \text{Fuel loading (tons/acre)} \times \text{EF (lbs pollutant/ton fuel)}$$

Rice burning emissions during the baseline							
District	Acres Burned	VOC Emissions (tons)	CO Emissions (tons)	NOx Emissions (tons)	PM10 Emissions (tons)	PM2.5 Emissions (tons)	SOx Emissions (tons)
Butte County	69,142	487.45	5953.13	539.31	653.39	611.91	114.08

Bankable rice burning emissions:

As allowed law, the maximum amount of federally recognized bankable emissions is equal to 75% of the baseline emissions.

$$\text{Bankable} = \text{Baseline Emissions} * 75\%$$

Maximum Rice burning emissions available for banking						
District	VOC Emissions (tons)	CO Emissions (tons)	NOx Emissions (tons)	PM10 Emissions (tons)	PM2.5 Emissions (tons)	SOx Emissions (tons)
Butte County	365.59	4464.84	404.48	490.04	458.93	88.56

ERC Values for Attainment Demonstration Document:

When developing the SIP attainment demonstration document, the process normally accounts for ERCs which have already been banked prior to the base planning year. If the reductions occur after the base planning year, the planning exercise needs to be able to demonstrate that the emissions were accounted for as an emission source in the base planning year. For Butte County base planning year of 2002 was used in the preparation of the 1997 8-hr ozone SIP

(Note: Butte County subsequently demonstrated 3 years of clean data and, therefore, was not required to submit a SIP for the 1997 8-hr ozone standard). For the 2002 planning inventory, the actual emissions from all burning (including rice) that was occurring in 2002 was accounted for. However, these rice ERCs were not banked at that point (at least, not with federal recognition) and a portion of the emissions were not occurring in 2002 because of the phase-down law. Therefore, the rice ERCs that are “eligible for banking” will be added to the baseline inventory to ensure they are accounted for in the modeling inventory for the attainment year. By making this adjustment, Butte County will be able to show attainment, while accounting for the emissions that will occur when these ERCs are used.

Because the photochemical modeling done for the attainment demonstration uses the summer ozone season, the units for these values will be in “summer planning day” averages, which are calculated using emissions between May 1<sup>st</sup> and October 31<sup>st</sup> and dividing by 184 days. In addition, the modeling only addresses ozone precursor pollutants of VOC and NOx.

Seasonal adjustment value = Annual Bankable Emissions (tons) \* % emitted between May 1<sup>st</sup> and October 31<sup>st</sup> / 184 days

Summer Planning Day calculations for Ozone			
District	May 1 <sup>st</sup> to Oct 31 <sup>st</sup> emissions (%)	VOC Emissions (tpd)	NOx Emissions (tpd)
Butte County	58.36%	1.16	1.28

The majority of Butte County was designated as a federal nonattainment area for the 24-hr PM2.5 standard in 2010. In preparation for the PM2.5 SIP, attainment planning and demonstration efforts have begun. The following table summarizes the maximum bankable PM 2.5 emissions allowable by Rule 433. This estimate for inventory purposes was calculated using the bankable portion of daily annual average of PM2.5 emissions from 1991 less the average current daily emissions for the period 2005 to 2009 (5 year average).

Annual Planning Day calculations for PM2.5	
District	PM2.5 Emissions (tpd)
Butte County	0.97

## **II. DISCUSSION OF PROPOSED NEW RULE 433 REQUIREMENTS**

Listed below are descriptions of the proposed requirements for new Rule 433.

### Section 1      General

Section 1 - Purpose: As discussed above, our District has previously allowed applications for rice straw burning emission reduction credits (in accordance with our Rule 431, Emission Reduction Credits); however, the EPA did not recognize the rule procedures to ensure federal applicability. Therefore, the purpose of this rule is to provide a federally recognized procedure for quantifying and certifying rice straw burning emission reductions. This will be the only process available for growers to receive federally recognized credits from cessation (phase-down) of rice straw burning.

### Section 2      Definitions

Proposed Rule 433 provides definitions to clarify terms used in the rule, and to improve overall enforceability and compliance. Many of the definitions come from other District rules or State and Federal law.

### Section 3      Standards

Section 3.1 - Determination if a parcel is eligible: This section defines which parcels qualify to generate ERCs. The parcel has to be in the District and the applicant must demonstrate (see section 4.2.2 & 4.2.3 of the proposed Rule 433) that rice straw burning occurred on the parcel during the baseline period.

Section 3.2 - Determination of available acreage: This section establishes the amount of acreage that is eligible for banking.

The District determined the total acres that were burned during the baseline, but not the individual growers who burned those acres. Following the procedures established in the “White Paper”, the “representative” year for Butte County was selected as 1991 as discussed above, during which time there were 69,142 acres burned. If the District receives applications with total available acreage of more than 69,142 acres, the District will adjust the values available for individual applications based on Section 404.

Section 3.3 - Determination of annual emission reductions available: As established between the Districts in the SFNA, ARB, and EPA, 75% of the emissions are bankable by law.

Section 3.4 - Determination of quarterly emission reductions available: This section

establishes the quarterly breakdown of the annual emissions. These values came from the Manual of Procedures (MOP)(currently Section 6.10, District Administrative Code, Part B).

Section 3.5 – Community Bank adjustment: Consistent with Rule 431, *Emission Reduction Credits*, the District will acquire 5% of the ERCs for deposit in the District’s Community Bank.

Section 3.6 - Deed restriction: This section requires that prior to issuing ERCs, a deed restriction be placed on the parcel. The deed restriction must limit the agricultural burning on the parcel consistent with the ERC. This section (along with 3.7 and 3.8) was added at the request of the EPA to establish federal enforceability of the program.

Section 3.7 - Restricted burn list: This section requires that the District place the parcel on our “restricted burn list”, which is a feature of our agricultural burn program.

Section 3.8 - Burning prohibition: This section requires that any parcel that obtained ERCs cannot burn more than 25% of the planted rice growing acreage.

#### Section 4      Administrative Requirements

This section establishes all of the administrative requirements associated with this program.

### **III. COMPARISON TO OTHER APPLICABLE REGULATIONS AND REQUIREMENTS**

California Health and Safety Code (CH&SC) Section 40727.2 requires districts to perform a comparative alternative analysis of any new control standard. Since there are no new control standards being proposed with this rule, this analysis is not applicable.

### **IV. IMPACTS OF THE PROPOSED RULE**

#### Emissions Impacts

The open field burning of rice straw creates emissions of all criteria pollutants: Nitrogen Oxides (NO<sub>x</sub>), Carbon Monoxide (CO), Particulate Matter less than 10 microns (PM<sub>10</sub>), Particulate Matter less than 2.5 microns (PM<sub>2.5</sub>), Volatile Organic Compounds (VOCs), and Sulfur Oxides (SO<sub>x</sub>). This rule will not result in any emission reductions.

#### Cost Effectiveness

CH&SC Section 40703 requires the District, in the process of the adoption of any rule or

regulation, to consider and make public its findings related to the cost effectiveness of the rule. Cost effectiveness for rulemaking purposes is calculated by dividing the cost of air pollution controls required by the rule by the amount of air pollution reduced.

This rule is not a control measure; therefore, a cost effectiveness cannot be performed.

#### Socioeconomic Impacts

CH&SC 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 210,000 and well below the 500,000 person threshold. Therefore, a socioeconomic analysis for this rulemaking is not required.

#### Incremental Cost Effectiveness

CH&SC Section 40920.6 requires an assessment of the incremental cost-effectiveness for proposed regulations relative to ozone, Carbon Monoxide (CO), Sulfur Oxides (SO<sub>x</sub>), Nitrogen Oxides (NO<sub>x</sub>), 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.

This rule is not a control measure, and therefore an incremental cost effectiveness cannot be performed.

#### Impacts to the District

The District will receive applications as a result of this rule, however, the rule requires application and evaluation fees to be submitted with applications, so there will be cost recovery to evaluate the applications and issue the ERC certificates.

### **V. ALTERNATIVES**

The Governing Board may choose to:

- a) Approve the proposed new rule as proposed;
- b) Direct staff to modify the amended rule after receiving public comments during the hearing; or
- c) Take no action.

**VI. ENVIRONMENTAL REVIEW AND COMPLIANCE**

The adoption of proposed new Rule 433 is categorically exempt from the California Environmental Quality Act (CEQA) under Sections 15307 and 15308 of the State CEQA Guidelines and no exceptions to these exemptions apply. This exemption is allowed when the rule will help improve air quality in Butte County. California Public Resources Code (Section 21159) requires an environmental analysis of the reasonably foreseeable methods of compliance. The District has concluded that no reasonably foreseeable adverse environmental impacts will be caused by adoption of the proposed rule.

**VII. REQUIRED FINDINGS**

Findings required by Division 26 of the California Health and Safety Code requires local districts to comply with a rule adoption protocol as set forth in Section 40727 of the Code. This section has been revised through legislative mandate to contain six findings that the District must make when developing, amending, or repealing a rule or regulation. These findings and their definitions are included in the Table 2.

**Table 2 - Findings**

<b>FINDING</b>	<b>DEFINITION</b>	<b>REFERENCE</b>
Authority	A district shall adopt rules and regulations and do such acts as may be necessary or proper to execute the powers and duties granted to, and imposed upon, the district by this division and other statutory provisions.	California Health and Safety Code Division 26, Part 3, Sections 40001, 40702, and 40716 are provisions of law that provide the District with the authority to adopt the proposed rule.
Necessity	The district has demonstrated that a need for the rule, or for rule amendment or repeal.	The adoption of proposed new Rule 433 is necessary to ensure federal recognition of ERCs generated from rice straw burning reductions.
Clarity	The rule is written or displayed so that its meaning can easily be understood by the persons directly affected by it.	There is no indication, at this time, that the proposed rule is written in such a manner that persons affected by the rule cannot easily understand it.
Consistency	This rule is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or State or federal regulations.	The District has found that the proposed rule is consistent with applicable statutory requirements.
Non-Duplication	The rule does not impose the same requirements as an existing State or federal regulation, unless the district finds that the requirements are necessary and proper to execute the powers and duties granted to, and imposed upon, the district.	The proposed rule does not impose requirements that duplicate existing laws or regulations.
Reference	Any statute, court decision, or other provision of law that the district implements, interprets, or makes specific by adopting, amending, or repealing a regulation.	California Health and Safety Code, Division 26, Part 3, Sections 40000, 40001, and 41865.

## **VIII. PUBLIC COMMENTS AND STAFF RESPONSES**

Staff will hold a public workshop on August 12, 2010 to discuss the proposed adoption of Rule 433. Notification to surrounding Air Districts, agricultural commissioner, the Butte County Farm Bureau, the Rice Commission, all agricultural rice burn permit holders, and all previous rice straw ERC applicants. The workshop notice was published in the Enterprise Record and Gridley Herald.

A copy of the public workshop notice, the draft staff report, and draft rule language, was posted on the District's web page.

## **IX. REFERENCES**

1. "Sacramento Federal Non-Attainment Area Rice Straw Emission Reduction Credit Model Rule Support Document (White Paper)", October 16, 2008
2. SFNA Rice Straw ERC Model Rule, October 16, 2008

**ATTACHMENT A**

**PROPOSED NEW RULE 433, RICE STRAW EMISSION REDUCTION CREDITS**

**RULE 433 RICE STRAW EMISSION REDUCTION CREDITS**  
*(Proposed for Adoption August 26, 2010)*

**RULE 433 CONTENTS**

- 1. GENERAL**
- 2. DEFINITIONS**
- 3. STANDARDS**
- 4. ADMINISTRATIVE REQUIREMENTS**
- 5. MONITORING AND RECORDS**
- 6. PROGRAM EVALUATION**
- 7. IDEMNIFICATION**

## 1 GENERAL

- 1.1 Purpose:** The purpose of this Rule is to provide a federally recognized procedure for quantifying and certifying rice straw burning emission reductions, and issuing the resulting Emission Reduction Credit (ERC) certificates.

This rule provides the only process by which ERC certificates issued for reductions in rice straw burning may be stored for later use to meet federal new source review offset requirements. Once issued in accordance with this rule, the procedures in Rule 431, *Emission Reduction Credits* shall be used as the administrative mechanism for sources to transfer ERCs to other sources for use as offsets.

- 1.2 Applicability:** The provisions of this Rule shall apply to any agricultural operation that grew rice and burned rice straw in the Butte County Air Quality Management District (DISTRICT) during the baseline period and voluntarily applies for rice straw ERCs.

- 2 DEFINITIONS:** Unless otherwise defined below, the terms used in this Rule are the same as defined in DISTRICT Rule 431, *Emission Reduction Credits*, Rule 430, *New Source Review*, or Rule 101, *Definitions*, in that order of priority.

- 2.1 Agricultural Burning:** Open outdoor fires used in the growing of crops. For the purpose of this Rule, agricultural burning is considered to be a source and such activity requires an agricultural burn permit.
- 2.2 Agricultural Burn Permit:** A permit issued by the DISTRICT, which is required in order to conduct an agricultural burn.
- 2.3 Agricultural Operation:** Equipment used exclusively in the growing of agricultural crops or in the commercial raising of fowl or animals.
- 2.4 Air Pollution Control Officer (APCO):** The person appointed pursuant to California Health and Safety Code (HSC) Section 40750 or his or her designated representative.
- 2.5 Applicant:** For a new application, the owner (or his/her designee) of the parcel. For a re-certification application, the current owner (or his/her designee) of an existing rice straw burning ERC.
- 2.6 Applicant Designee:** The person, company, or entity submitting an application on behalf of the applicant. Such designee shall provide written authorization signed by the applicant to serve as the designee.

- 2.7 Banking:** The system of quantifying, certifying, recording, and storing ERCs for future use and transfer. This system shall be called the ERC Bank.
- 2.8 Baseline Period:** Calendar years 1988 through 1992.
- 2.9 Certified:** ERCs which have been evaluated under the requirements of this Rule and other applicable DISTRICT, State, and Federal Rules and Regulations and which have been granted by the APCO.
- 2.10 Emission Reduction Credits (ERCs):** Reductions of actual emissions that are registered with the DISTRICT in accordance with the requirements of Rule 431, *Emission Reduction Credits*.
- 2.11 Historic Burn Fraction (HBF):** The percentage of the total amount of rice planted which was burned during the baseline period. For this rule, the HBF is 100%.
- 2.12 New Application:** An application submitted in accordance with this rule for which the DISTRICT has not already received an ERC application for reductions in rice straw burning for a parcel(s) prior to adoption of this Rule.
- 2.13 Parcel:** A legally identifiable piece of land as registered with a County Assessor's office for property tax purposes and assigned an Assessor's Parcel Number (APN).
- 2.14 Re-Certification Application:** An application submitted in accordance with this rule for which the DISTRICT has previously received an ERC application for reductions in rice straw burning for a parcel(s) prior to adoption of this Rule.
- 2.15 Register:** The document that records all ERC deposits, withdrawals, transfers, and transactions.
- 2.16 Restricted Burn List:** A list (maintained by the DISTRICT) of parcels which have restrictions related to future agricultural burning.
- 2.17 Rice Straw Burning:** The intentional open burning of rice straw material. For the purpose of this Rule, rice straw burning is considered to be a source and such activity requires an agricultural burn permit.
- 2.18 Rice Straw Burning Emission Reductions:** Emission reductions that qualify for banking pursuant to HSC Section 41865.

- 2.19 Rice Growing Acreage:** The amount of acreage contained in a parcel that was used for the production of rice during the baseline period.
- 2.20 Surplus:** The amount of emission reductions that are, at the time of generation of an ERC, not otherwise required by federal, State, or local law, not required by any legal settlement or consent decree, and not relied upon to meet any requirement related to the California State Implementation Plan (SIP). However, emission reductions required by a State statute that provides that the subject emission reductions shall be considered surplus may be considered surplus for purposes of this Rule if those reductions meet all other requirements of this Section. Examples of federal, State, and local laws, and of SIP-related requirements, include, but are not limited to, the following:
- 2.20.1** The federally-approved California SIP;
  - 2.20.2** Other adopted State air quality laws and regulations not in the SIP, including but not limited to, any requirement, regulation, or measure that: (1) the DISTRICT or the State has included on a legally-required and publicly-available list of measures that are scheduled for adoption by the DISTRICT or the State in the future; or (2) is the subject of a public notice distributed by the DISTRICT or the State regarding an intent to adopt such revision;
  - 2.20.3** Any other source- or source-category specific regulatory or permitting requirement, including, but not limited to, Reasonable Available Control Technology (RACT), New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), Best Available Control Measures (BACM), Best Available Control Technology (BACT), and the Lowest Achievable Emission Rate (LAER); and
  - 2.20.4** Any regulation or supporting documentation that is required by the federal Clean Air Act but is not contained or referenced in 40 Code of Federal Regulations (CFR) Part 52, including but not limited to: assumptions used in attainment and maintenance demonstrations (including Reasonable Further Progress demonstrations and milestone demonstrations), including any proposed control measure identified as potentially contributing to an enforceable near-term emissions reduction commitment; assumptions used in conformity demonstrations; and assumptions used in emissions inventories.

### 3 STANDARDS

- 3.1 Determination If A Parcel Is Eligible:** A particular parcel qualifies to generate ERCs under this rule if the following requirements are met:
- 3.1.1** The parcel is located in Butte County; and
  - 3.1.2** Rice straw burning occurred on the parcel during the baseline period.

**3.2 Determination Of Available Acreage:** The available acreage for generating ERCs shall be determined by adding all of the rice growing acreage of an applicant’s eligible parcels and multiplying by the HBF. In no case shall the total available acreage for the entire DISTRICT exceed 69,142 acres. In the event that the DISTRICT receives applications for which the total available acreage exceeds 69,142 acres, the DISTRICT shall lower the amount of available acreage for each application in accordance with Section 4.4.

**3.3 Determination Of Annual Emission Reductions Available:** The amount of annual emission reductions available shall be determined by multiplying the available acreage times 75% times the applicable emission factor in the following table:

Pollutant	Emission Factor (lbs/acre)
Volatile Organic Compounds (VOC)	14.1
Nitrogen Oxides (NOx)	15.6
Carbon Monoxide (CO)	172.2
Particulate Matter less than 10 microns (PM10)	18.9
Particulate Matter less than 2.5 microns (PM2.5)*	17.7
Sulfur Oxides (SOx)	3.3

\*PM2.5 is a subset of PM10 and constitutes 94% of the PM10 emissions.

**3.4 Determination Of Quarterly Emission Reductions Available:** The emission reductions shall be quantified on a calendar quarter basis. The following percentages shall be used to determine the amount of emission reductions in each calendar quarter:

Calendar Quarter	Percentage
First Quarter	27%

Second Quarter	44%
Third Quarter	3%
Fourth Quarter	26%

**3.5 Community Bank Adjustment:**

**3.5.1** Except as provided in Section 3.5.2 below, the DISTRICT shall take five percent (5%) of the emission reductions before the ERCs are granted and apply the emissions toward attainment of the air quality standards or place the emissions into a community bank controlled by the DISTRICT for use by essential public services, such as sewage treatment, schools, hospitals, fire fighting, police, jail, water delivery, and mandated cleanup operations.

**3.5.2** An applicant may restrict use of the ERCs only for the applicant’s own future use, at the same parcel or site, in which case the DISTRICT will not adjust the ERCs. The applicant may have the restriction removed by the DISTRICT upon payment of costs incurred by the DISTRICT to re-issue an unrestricted ERC certificate.

**3.5.3** Owners of ERC certificates may donate their ERCs to the DISTRICT for purposes of assisting the DISTRICT towards attainment of the air quality standards.

**3.6 Deed Restriction:** Prior to the issuance of an ERC, a deed restriction shall be placed on the parcel or group of contiguous parcels for which ERCs will be granted and a copy provided to the DISTRICT. The deed restriction shall prohibit agricultural burning on the parcel which is not consistent with the ERC.

**3.7 Restricted Burn List:** Prior to the issuance of an ERC, the DISTRICT shall place the parcel or group of contiguous parcels on the restricted burn list. In each calendar year, no agricultural burn permit may be issued for greater than 25% of the rice growing acreage of any parcel listed on the restricted burn list.

**3.8 Burning Prohibition:** No person shall conduct agricultural burning on more than 25% of the rice growing acreage of a parcel which has received an ERC certificate pursuant to the provisions of this rule. In addition, applicants must comply with California H&SC 41865.

#### 4 ADMINISTRATIVE REQUIREMENTS

- 4.1 Application Filing Deadline:** All applications to obtain rice straw ERC certificates in accordance with this rule shall be submitted by January 1, 2011. Applications submitted after January 1, 2011 shall not be eligible for ERCs under this rule.
- 4.2 Application Requirements - New Applications:** The applicant shall submit one application for each parcel or for each set of contiguous parcels. The application shall contain the following information:
- 4.2.1** List of each parcel included in the application, including APN and any owner's designation or identifier.
  - 4.2.2** The acreage of each parcel that was used to grow rice during the baseline period and documentation of such acreage.
  - 4.2.3** Documentation that rice straw burning occurred on the acreage of each parcel (identified above) during the baseline period. Examples of acceptable documentation include, but are not limited to, copies of a DISTRICT burn permit, log books, pictures, or other DISTRICT approved verifiable records. In the event that a burn permit or other records are not available, the DISTRICT may accept a signed affidavit (under penalty of perjury) from the applicant certifying that rice straw on the parcel was burned during the baseline period.
  - 4.2.4** A statement of intent to file a deed restriction required by Section 3.6 for each parcel or for each set of contiguous parcels for which an application is being submitted (A copy of the deed restriction must be provided prior to final issuance of the rice straw ERC certificate).
  - 4.2.5** Filing fees for the application shall be assessed in accordance with District Rule 500, *Stationary Source Permit Fees* and issuance of ERCs will be assessed in accordance with District Rule 503, *Emission Reduction Credit (ERC) Fees*.
- 4.3 Application Requirements - Re-Certification Applications:** The applicant shall submit one application for each ERC certificate for a parcel or group of contiguous parcels.
- 4.4 Available Acreage Adjustment:** In the event that the DISTRICT receives applications in which the requested available acreage totals to more than 69,142 acres, the DISTRICT shall lower the percentage available as follows:

- 4.4.1 The re-certification applications meeting the criteria of this rule shall get full credit on their acreage.
- 4.4.2 The applications with verifiable burn records will have second priority. If the total available acreage for all these applications along with the re-certification applications does not exceed 69,142 acres, these applications will get full credit. If the total of all these applications along with the re-certification applications exceeds 69,142 acres, these applications shall be adjusted proportionally so that the total acreage for which all rice straw burning ERCs are issued does not exceed 69,142 acres.
- 4.4.3 For all remaining applications with affidavits for burn documentation, the amount of rice straw acreage determined to be available shall be adjusted proportionally so that the total acreage for which all rice straw burning ERCs are issued does not exceed 69,142 acres.

#### 4.5 Application Processing Procedures:

- 4.5.1 **Complete Application:** The APCO shall determine whether the application is complete not later than 30 days after receipt of the application for ERC certificates. If the APCO determines that the application is not complete, the applicant shall be notified in writing of the decision specifying the information required. If the specified information is not submitted within 30 days the application shall be denied by the APCO.
- 4.5.2 **Additional Information:** Upon receipt of additional information for an incomplete application a new 30 day period to determine completeness shall begin. During the processing of the application, the APCO may request an applicant to clarify, amplify, correct, or otherwise supplement the information submitted in the application.
- 4.5.3 **Preliminary Decision:** Following acceptance of an application as complete, the APCO shall perform the evaluations required to determine compliance with all applicable DISTRICT Rules and Regulations and make a preliminary written decision as to whether the emission reduction should be certified as ERCs. The decision should be supported by a succinct written analysis.
- 4.5.4 **Publication And Public Comment:** Within 10 calendar days following a preliminary decision, the APCO shall publish, in at least one newspaper of general circulation in the DISTRICT, a notice stating the preliminary decision of the APCO, noting how the pertinent information can be obtained, and inviting written public comment for a 30 day period following the date of publication.
- 4.5.5 **Deed Restriction:** Within 90 calendar days of the public notice being published, the applicant shall submit a final copy of a legal deed restriction.

- 4.5.6 Public Inspection:** The APCO shall make available for public inspection at the DISTRICT office the information submitted by the applicant and the APCO's analysis no later than the date the notice of the preliminary decision is published, pursuant to Section 4.5.4. Further, all such information shall be transmitted to the California Air Resources Board and the US Environmental Protection Agency (EPA) regional office, and to any party which requests such information no later than the date of publication.
- 4.5.7 Final Action:** Within 180 days after the application filing deadline in Section 4.1 of this rule, the APCO shall take final action on the applications, after considering all written comments.
- 4.6 Violations:** Failure to comply with any provision or restriction of this rule shall be considered a violation of this rule.
- 5 MONITORING AND RECORDS:** For any parcel or group of contiguous parcels for which a rice straw ERC certificate has been issued, the initial ERC holder or current land owner shall keep records of the amount of acres, crop type and burning that has occurred during the previous five (5) years.
- 6 PROGRAM EVALUATION:** Within two (2) years after adoption of this rule, the DISTRICT shall evaluate the program and submit an evaluation report to EPA. The report shall include a discussion of the total number of applications approved, total acreage subject to this rule, and total amount of ERCs issued.
- 7 INDEMNIFICATION:** Each applicant for, and recipient of, an ERC certificate agrees to indemnify, defend and hold the DISTRICT (including its Board Members, officers, directors, managers, employees and agents) harmless and free and clear from and against any liability, debt, obligation, claim, judgment, action, cause of action or cost or expense, of any amount or nature whatsoever incurred by or imposed upon the DISTRICT arising out of, as a result of, related to or in any way in connected with the denial, issuance, modification or transfer of a certificate, including an action by the Hearing Board. Such costs or expenses shall include, but not be limited to, reasonable attorneys fees, expert witness fees and all other litigation expenses.

**ATTACHMENT B**

**PUBLIC NOTICE**

## NOTICE OF PUBLIC HEARING AND WORKSHOP

**PUBLIC NOTICE IS HEREBY GIVEN**, pursuant to and in compliance with all public notice requirements in effect, that the Butte County Air Quality Management District (District) Governing Board of Directors will hold a Public Hearing on Thursday, August 26, 2010 at 10:00 a.m. to consider adoption of proposed new District Rule 433, *Rice Straw Emission Reduction Credits*, which sets forth a program to ensure federal recognition of ERCs generated from rice straw burning reductions. The proposed new rule sets forth the procedures for applications, evaluations, and issuance for rice straw reduction burning ERCs. The hearing will be held at the Chico City Council Chambers, 421 Main Street in Chico, CA.

A public workshop will be held on Thursday, August 12, 2010 at 3:00 p.m. at the District Office, 2525 Dominic Drive, Suite J, Chico, CA.

**COMMENTS:** The public may comment verbally or in writing prior to the time of the hearing. Interested parties may review the proposed new rule, related Staff Report, and supporting documentation either online at [www.butteairquality.com](http://www.butteairquality.com) or at the District Office on or after July 28, 2010. The District office telephone number is (530) 891-2882. All written comments should be filed with the District BOARD CLERK, at the District Office, no later than August 19, 2010.

**HEARING:** All persons planning to attend the Public Hearing are advised that this item may be taken up after 10:00 a.m. pursuant to the order of items set forth in the Agenda. Comments, statements, or arguments relating to the matters publicized in this Notice may be presented orally or in writing. Following the Public Hearing on August 26, 2010, and without further notice, the District Board may adopt the proposed new Rule or take other action consistent with the terms of this Notice.

DATED: July 28, 2010

By: W. James Wagoner  
AIR POLLUTION CONTROL OFFICER

**ATTACHMENT C**

**DRAFT RESOLUTION NO. 2010-19**

**DRAFT RESOLUTION 2010-  
BEFORE THE BOARD OF DIRECTORS OF  
BUTTE COUNTY AIR QUALITY MANAGEMENT DISTRICT  
STATE OF CALIFORNIA**

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Resolution 2010-19.....)  
Adopt Proposed New Rule 433.....)

WHEREAS, the Butte County Air Quality Management District Board obtains its authority to adopt, amend, or repeal Rules and regulations from California Health and Safety Code Sections Division 26, Part 3, Sections 40001, 40702, and 40716;

AND WHEREAS, the Butte County Air Quality Management District Board has determined that the adoption of the proposed new rule is necessary to ensure federal recognition of ERCs generated from rice straw burning reductions;

AND WHEREAS, the Butte County Air Quality Management District Board has determined that the proposed amendments to the Rule are written or displayed so that its meaning can easily be understood by the persons directly affected by it (Health and Safety Code Section 40727(b)(3));

AND WHEREAS, the Butte County Air Quality Management District Board has found that the proposed rule is consistent with applicable statutory requirements;

AND WHEREAS, the Butte County Air Quality Management District Board has determined that the proposed new Rule adopted herein are in harmony with, and not in conflict with or contradictory to existing statutes, court decisions, or state or federal regulations (Health and Safety Code Section 40727(b)(4)) and that the regulation does not impose the same requirements as an existing state or federal regulation (Health and Safety Code Section 40727(b)(5));

AND WHEREAS, the Butte County Air Quality Management District Board conducted public hearing on August 26, 2010 concerning the proposed new rule herein;

AND WHEREAS, the District staff has made notice of the public hearing to adopt the proposed Rule, held a public workshop meeting, and received comments as included in the board report, which are included herein as a record of those proceedings;

THEREFORE, BE IT RESOLVED, that the Butte County Air Quality Management District Board hereby adopts, with an effective date of August 26, 2010, proposed new Rule 433, Rice Straw Emission Reduction Credits, as released on July 28, 2010.

On Motion of \_\_\_\_\_, Seconded by \_\_\_\_\_, the foregoing resolution is hereby PASSED AND ADOPTED by the Air Quality Management District Board of Directors on this 26 day of August, 2010 by the following:

AYES:

NOES:  
ABSTAIN:  
ABSENT

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W. James Wagoner, Air Pollution Control Officer  
Butte County Air Quality Management District

I hereby attest that this is a true and correct copy of the action taken by the Butte County Air Quality Management District Board of Directors on August 26, 2010.

ATTEST: \_\_\_\_\_  
Trish Weir, Clerk of the Governing Board