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**DRAFT**

**REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT)**

**STATE IMPLEMENTATION PLAN (SIP) REVISION**

**FOR**

**WESTERN NEVADA COUNTY**

**8-HOUR OZONE NON-ATTAINMENT AREA**

**NEGATIVE DECLARATIONS FOR CONTROL TECHNIQUES**

**GUIDELINES ISSUED IN 2006 AND 2007**

Submitted In Partial Fulfillment of Obligations under the Federal Clean Air Act

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Northern Sierra Air Quality Management District

## **EXECUTIVE SUMMARY**

Western Nevada County is a designated non-attainment area for the federal 8-hour ozone standard. The federal Clean Air Act (CAA) requires certain categories of sources (specified in Section 183(e)) in ozone non-attainment areas to implement ozone precursor control measures called “reasonably available control technology” (RACT). In order to assist areas in identifying and implementing RACT, EPA issues Control Techniques Guidelines (CTGs) for specific source categories. These serve to define RACT, and each non-attainment area must implement measures laid out in a CTG, or the equivalent, if there are sources in the area to which that CTG applies.

The District has already implemented all of the measures EPA identified as RACT via issuance of CTGs through 2005 that apply to existing sources in the non-attainment area. These were submitted as a RACT State Implementation Plan (SIP) to ARB on June 25, 2007 for transmittal to EPA.

In 2006 and 2007, EPA issued 7 additional CTGs. The District evaluated each CTG for applicability in the non-attainment area. This involved research to find out if there are any sources to which a CTG may apply.

The District has determined that none of the CTGs issued in 2006 and 2007 apply to sources located in the non-attainment area. This document is termed a “Negative Declaration,” and it provides background and supporting evidence for the District’s determination. It also includes a commitment to adopt and implement RACT in the event that a source to which established RACT applies is identified in the non-attainment area in the future. A Negative Declaration constitutes a revision to a non-attainment area’s SIP. It must be approved by the governing body of the agency with jurisdiction over stationary sources of air pollution in the non-attainment area, following a public notice and a public hearing, pursuant to Section 110(a) of the Clean Air Act.

## **INTRODUCTION**

The Western Nevada County portion of the District was designated Basic Non-attainment for the 8-hour ozone NAAQS, effective June 15, 2004. The Basic classification was remanded by a federal court in December, 2006, and EPA lost subsequent appeals. The District is currently awaiting reclassification. Nonetheless, the District remains “non-attainment.” Since regional emissions of ozone precursors cannot be reduced quickly enough for western Nevada County to demonstrate attainment by its deadline of 2009, it is anticipated that an extension to a later date will be requested. Therefore, the requirements in Title 1, Part D, Subpart 1 of the Clean Air Act (as amended in 1990) apply, pursuant to CFR 51.912(c)(1). 172(c)(1) of the CAA requires “the implementation of all reasonably available control measures as expeditiously as practicable.” CFR Section 51.912(c)(2) requires that areas requesting an attainment date more than five years

after the non-attainment designation adopt RACT as specified in 182(b)(2) of the CAA. 182(b)(2) specifies the implementation of RACT for each category of sources in the non-attainment area that is covered by a CTG document, as well as any non-CTG major sources (none of which exist in the non-attainment area).

The Northern Sierra Air Quality Management District (referred to here as the District) includes the rural California counties of Plumas, Sierra and Nevada. Western Nevada County was designated “non-attainment” for the federal 8-hour ozone standard in 2004. Most of Nevada County’s ozone is transported from the “Sacramento Metro” area, as defined in the Air Quality Designations and Classifications for the 8-Hour Ozone National Ambient Air Quality Standards final rule (69 Federal Register, 23858, April 30, 2004), and to a lesser extent from the San Francisco Bay Area.

The entire population of the mostly forested non-attainment area is approximately 75,000, with a density of only 0.14 persons per acre (6.9 acres per person). The largest stationary VOC emission source in the non-attainment area is a furniture manufacturer that emitted fewer than 4 tons of VOCs in 2006. Emissions of natural VOCs from vegetation far outweigh anthropogenic VOC emissions in the non-attainment area.

EPA requires federally designated non-attainment areas to adopt and implement all Reasonably Available Control Technology (RACT). RACT is defined as the lowest emission limitation that a particular source is capable of meeting by the application of control technology (i.e., devices, systems, process modification, or other apparatus or techniques that reduce air pollution) that is reasonably available, considering technological and economic feasibility.

The RACT requirement is meant to ensure that ozone non-attainment areas are taking reasonable steps to minimize the emission of ozone precursors. In order to assist areas in identifying and implementing RACT, EPA issues Control Techniques Guidelines (CTGs) for specific source categories. These serve to define RACT, and each non-attainment area must implement measures laid out in the CTGs, or the equivalent, if there are sources in the area to which they apply. Alternatively, for each source category covered by a CTG the local air district may declare that there are no sources, either existing or anticipated, in its area that are subject to a RACT requirement, which makes the requirement to adopt a rule for those types of sources no longer applicable. This is known as a “Negative Declaration.”

When EPA issues new CTGs, a non-attainment area must submit a RACT SIP Revision to address them. This document addresses federal requirements for identifying and implementing seven CTGs that EPA issued in 2006 and 2007, presents Negative Declarations, and describes the processes the District used in its determinations. The following CTGs are being addressed: Industrial Cleaning Solvents; Offset Lithographic Printing and Letterpress Printing; Flexible Package Printing; Flat Wood Paneling Coatings; Paper, Film, and Foil Coatings; Large Appliance Coatings; and Metal Furniture Coatings. All of these CTGs are intended to curb the emission of volatile organic compounds (VOCs), which react with nitrogen oxides (NOX) in the

presence of sunlight to form ozone. All of the 2006 and 2007 CTGs include a 15 pound/day potential-to-emit threshold.

## **CTG/RACT APPLICABILITY DETERMINATION OVERVIEW**

The District performed an analysis of sources located in the non-attainment area to determine if RACT measures may apply under any of the 7 CTGs (Industrial Cleaning Solvents; Offset Lithographic Printing and Letterpress Printing; Flexible Package Printing; Flat Wood Paneling Coatings; Paper, Film, and Foil Coatings; Large Appliance Coatings; and Metal Furniture Coatings). This involved researching all Control Techniques Guideline (CTG) documents, as well as pertinent EPA guidance, and determining their applicability to sources in the District. The basic analysis process was as follows. The District identified the types of sources to which each CTG may apply and checked all permitted sources (which includes most sources emitting more than 1,000 pounds/year of a criteria pollutant) for potential applicability. The District then researched the telephone book yellow pages, the Chamber Of Commerce membership roster, and the Internet to identify additional sources with potential applicability. Specific sources to which any CTG might apply were contacted and interviewed with questions designed to determine potential applicability as rapidly and easily as possible. In many cases, the District asked the source contact person if she or he knew of additional, similar-type sources in the County. The District also cross-referenced its stationary-source and area-source emission inventories. Further details are included in the following section.

## **INDIVIDUAL CTG APPLICABILITY ANALYSES**

### **Industrial Cleaning Solvents (EPA-453/R-06-001 2006/09)**

The District reviewed the CTG, which applies to facilities emitting at least 15 pounds per day (or 5,475 pounds per year) of VOCs. As a matter of perspective, 15 pounds per day VOC emissions equates to 4 gallons per day (1,458 gallons per year) of solvent with a density of 900 g/l (a presumptive density consistent with assumptions in the 1994 ACT for industrial solvents) having 50% VOC content, all of which is emitted. As part of this review, the District evaluated each of the NAICS categories listed in Appendix C of the CTG for presence in the non-attainment area. Of those categories for which sources exist, a screening potential-to-emit analysis was performed, tiered to the applicability criteria of 15 pounds per day VOC emissions, as an initial screening tool. This ruled out many of the categories (e.g. residential remodelers, carpentry contractors, furniture stores, and all sources holding a District Permit to Operate in the non-attainment area). Solvent usage by printers and publishers was analyzed as part of the RACT applicability determinations for Offset Lithographic Printing and Letterpress Printing and for Flexible Package Printing, elsewhere in this document.

The District searched the phone book, the Chamber of Commerce and the Internet and contacted all identified sources that could conceivably trigger RACT for industrial solvents, using the basic

screening questions, “Does your facility use any kind of solvent or combination of solvents in excess of a gallon per day or the equivalent?” and “Do you have a spray booth, solvent line or solvent tank?” None of the contacted facilities had a spray booth, solvent line or solvent tank (except as listed below) or used anywhere near 2 gallons per day of solvents, so the District determined that they did not trigger RACT for industrial solvents. The list of contacted facilities is below. The District has determined that the facility-wide emissions for each of these are below the permitting threshold of 1,000 pounds per year, which is well below the 15 lb/day threshold. In addition, the District has previously contacted (and permitted if emissions exceed 1,000 pounds/year of any criteria pollutant) all of the remaining sources that the District is aware of that could, by any stretch of the imagination, emit 15 pounds per day of VOCs, as part of the District’s permitting and compliance program. This includes more than a dozen auto body shops and several wood product coating facilities.

**Facilities Contacted Regarding Solvent Usage**

Date	Facility/Contact	Solvent Usage
2-22-08	Sierra Nevada Memorial Hospital/Karen Abbott	A fraction of a gallon per day (including usage by painter)
2-28-08	Lanmark Circuits/Gary Arnold	Maximum usage is a pint per day of acetone and a pint per day of isopropyl alcohol
2-28-08	Nevada County Dept. of Transportation and Sanitation/Don Craddock, Purchasing	Well below 2 gallons per day total used in 2 small, fully enclosed Safety-Kleen parts washers and all road marking and other activities combined
2-28-08	High Country Tek/Leonard	Less than 10 gallons per year of solvents
2-28-08	High Sierra Electronics/Jerry Bloom	Less than 10 gallons per year of solvents
2-28-08	ZAP Manufacturing/Tim Corkins	Approximately 2 gallons per month used in silk-screening, cleaning and all other activities combined

It should be noted that the State of California has an aggressive statewide consumer products standards program, which substantially complies with the CTG-recommended control of 50 grams of VOC per liter of solvent. In particular, State regulations limit, by 2009, the VOC content of non-aerosol engine degreasers, general purpose cleaners, general purpose degreasers, glass cleaners, laundry prewash solvents, oven cleaners, wood cleaners, carpet and upholstery cleaners, bathroom and tile cleaners, floor or wall covering adhesive removers, nail polish removers, sanitizers, and toilet/urinal care products to a VOC content of 5% or less by weight. The CTG-recommended 50 g/l control measure equates to 5.56% by weight, assuming a solvent density of 900 g/l, consistent with assumptions in the CTG.

**Offset Lithographic Printing and Letterpress Printing (EPA-453/R-06-002 2006/09)**

The District reviewed the CTG, which applies to facilities emitting at least 15 pounds per day (or 5,475 pounds per year) of VOCs. In order to determine if there are any sources in the non-attainment area that exceed the CTG’s applicability threshold, the District contacted all of the

businesses that might engage in printing, based on a search of currently permitted sources, the local phone book, the Internet and the Chamber of Commerce membership roster.

The largest-emitting printer in the non-attainment area is The Union Newspaper, with a circulation of approximately 17,000. On February 29, 2008 the District worked with Lee Brant, Production Director to quantify emissions from newspaper printing. The Union uses offset lithography employing a coldset web process. The cleaning process uses a blanket wash system. No glues, varnishes or coatings are used. All glossy print items are printed outside the County (mostly in Reno, Nevada); no glossy printing is performed at The Union. Annual consumption and potential emission figures based on MSDS information and purchasing records are as follow.

Ink (0.19 lbs/gallon VOC) x 5528 gallons/year = 1050 lbs. potential emissions  
 Fountain Solution (0.5 lbs/gallon VOC) x 220 gallons/year = 110 lbs. potential emissions  
 Cleaning Solution (6.3 lbs/gallon VOC) x 110 gallons/year = 693 lbs. potential emissions  
 Total potential emissions for all inks, fountain solutions and cleaning solutions: 1853 lbs/year.  
 Thus, The Union's potential to emit is approximately 5 pounds per day of VOCs.

All additional businesses identified as potential VOC emission sources from printing, based on the District's thorough search, are listed in the following table, along with the date the District contacted each facility and relevant notes.

Printers in Western Nevada County

Date	Facility	Notes
2-28-08	Copy Right, 791 Maltman Dr., 477-7774	Have a press. Soy-based ink. Well under a gallon per day of all inks, fountain solutions and cleaners combined.
2-28-08	Country Copy Print Shop , 1200 E. Main, Grass Valley 272-4657	Offset lithography. Well under a gallon per day of all inks, fountain solutions and cleaners combined.
2-28-08	Grass Valley Printers, 1050 Whispering Pines Lane, Ste. 1, 273-1993	Well under a gallon per day of all inks, fountain solutions and cleaners combined.
2-28-08	Designer Business Forms & Systems 272-9951	Don't do any in-house printing
2-29-08	EC Graphic Displays 477-7414	Prints banners and signs, not plastic bags or bread sacks. Uses about a liter per year of ink. Well under a gallon per day of all inks, fountain solutions and cleaners combined.
2-28-08	Full Circle Press 273-5606	Letterpress. Photopolymer water-washout plates. Well under a gallon per day of all inks, fountain solutions and cleaners combined.
2-29-08	Gold Country Business Forms 878-1245	Don't do any in-house printing.

2-29-08	Grass Valley Business Forms 268-2516	Don't do any in-house printing.
2-28-08	House of Print & Copy, 1501 E. Main, Grass Valley 273-1000	Offset lithography. Well under a gallon per day of all inks, fountain solutions and cleaners combined.
2-28-08	LectraMedia Inc., 650 Gold Flat Rd., NC, 478-8300	All digital processes with standard color printers.
2-28-08	Lindsay's Custom Printing, 12996 Colfax Hwy., 477-0902	Well under a gallon per day of all inks, fountain solutions and cleaners combined.
2-28-08	Nevada County Printing & Publishing, 217 1-2 N Auburn, GV, 273-4590	Letterpress. Well under a gallon per day of all inks, fountain solutions and cleaners combined.
2-28-08	North Star Printing, 12400 Loma Rica Drive # 7 Grass Valley, 272-6636	Recently out of business.
2-28-08	Paragon Press 274-1920	Letterpress. Use a couple of teaspoons of ink per day. Well under a gallon per day of all inks, fountain solutions and cleaners combined.
3-3-08	Precision Printers, Inc. (I Graphics), Grass Valley, 273-2200	Well under a gallon per day of all inks, fountain solutions and cleaners combined.
2-28-08	Anything's Printable & Wild Women On Line, Grass Valley 477-5176	Xerox machine only.
2-29-08	Real Graphic Source, Hwy. 49 & Wolf Rd., Lake of the Pines 268-8866	Xerox-style color copier only.

**Flexible Package Printing (EPA-453/R-06-003 2006/09)**

The District reviewed the CTG, which applies to facilities emitting at least 15 pounds per day (or 5,475 pounds per year) of VOCs. In order to determine if there are any sources in the non-attainment area that exceed the CTG's applicability thresholds for both flexible package printing and offset lithographic printing/letterpress printing, the District contacted all of the businesses that might engage in printing, based on a search of currently permitted sources, the local phone

book, the Internet and the Chamber of Commerce membership roster. The only facility that regularly prints on flexible materials in any quantity is EC Graphics (contacted February 29, 2008), which prints signs and banners. EC Graphics uses approximately a liter of ink per year, and well under an average of two gallons per day of all solvents, fountain solution and ink combined. The District did not identify any facilities that print plastic bags or bread sacks within the non-attainment area.

The District has determined that there are no sources in the District to which the CTG applies.

**Flat Wood Paneling Coatings (EPA-453/R-06-004 2006/09)**

The District reviewed the CTG, which applies to facilities that coat any “interior, exterior or tileboard ... panel” with a “protective, decorative, or functional material or layer,” and emit at least 15 pounds per day (or 5,475 pounds per year) of VOCs. The District searched its permitted source list, the phone book, the Chamber of Commerce and the Internet and determined that there are no sources in the non-attainment area that coat wood panels. As an additional step, the District contacted Caseywood Corporation on February 26, 2008 to make sure they do not coat panels in Nevada County, which they do not.

The District has determined that there are no sources in the District to which the CTG applies.

**Paper, Film, and Foil Coatings (EPA 453/R-07-003 2007/09)**

The District reviewed the CTG, which applies to facilities emitting at least 15 pounds per day (or 5,475 pounds per year) of VOCs. The District searched its permitted source list, the phone book, the Chamber of Commerce and the Internet and determined that there are no sources within the District that coat paper, film or foil in the manner to which the CTG applies.

The District has determined that there are no sources in the District to which the CTG applies.

**Large Appliance Coatings (EPA 453/R-07-004 2007/09)**

The District reviewed the CTG, which applies to facilities emitting at least 15 pounds per day (or 5,475 pounds per year) of VOCs. A review of the District’s permitted sources, the phone book, the Chamber of Commerce and the Internet reveals that there are no permitted or unpermitted sources that coat large appliances. It is possible that some appliance refurbishers may apply touch-up paint to scratched or damaged areas, but certainly not in any quantity approaching the CTG applicability threshold.

The District has determined that there are no sources in the District to which the CTG applies.

**Metal Furniture Coatings (EPA 453/R-07-005 2007/09)**

The District reviewed the CTG, which applies to facilities emitting at least 15 pounds per day (or 5,475 pounds per year) of VOCs. A review of the District’s permitted sources reveals that there are no permitted sources that coat metal furniture. The District learned, via a search of the phone book, the Internet, and the Chamber of Commerce, of one small facility that makes metal

furniture (IWM-Indigo Wood & Metalworks) in the non-attainment area. The District contacted Don Augstein, owner, on February 28, 2008, who said that they only use several gallons of coating per year, at the most.

The District has determined that there are no sources in the District to which the CTG applies.

#### **NEGATIVE DECLARATION -- STATEMENT OF ADOPTION**

By adoption of this document, the Northern Sierra Air Quality Management District Board of Directors declares that, to the best of its knowledge, following a publicly noticed public hearing, there are no existing or anticipated sources in the Western Nevada County federal ozone non-attainment area to which any of the seven Control Techniques Guidelines promulgated by EPA during 2006 and 2007 (Industrial Cleaning Solvents; Offset Lithographic Printing and Letterpress Printing; Flexible Package Printing; Flat Wood Paneling Coatings; Paper, Film, and Foil Coatings; Large Appliance Coatings; and Metal Furniture Coatings) apply.

By adoption of this document, the Northern Sierra Air Quality Management District Board of Directors further declares that RACT will be adopted and implemented, consistent with legal requirements, for all new and existing sources identified in the Western Nevada County non-attainment area to which any federally promulgated CTGs (or amendments to the CTGs) apply in the future.

Attachment 1

Northern Sierra Air Quality Management District Board of Directors Negative Declaration  
Adoption Resolution

Attachment 2

Evidence of Public Notice for Public Hearing and Adoption of Negative Declaration