

ANTELOPE VALLEY AIR QUALITY MANAGEMENT DISTRICT

RULE 1623 -- CREDITS FOR CLEAN LAWN AND GARDEN EQUIPMENT

(Adopted: 05/10/96)

(a) Purpose

The purpose of this rule is to provide opportunities to generate NO_x, VOC, CO, and PM mobile source emission reduction credits (MSERCs) that can be used as an alternative means of compliance with District regulations, as well as promote the purchase of low-polluting equipment and the early retirement of older, high-polluting equipment. These credits would be generated based on voluntary emission reductions within the District that are beyond those required by local, state, and federal regulations.

(b) Applicability

This rule applies to any lawn & garden equipment for which emission standards have been adopted by the ARB. The equipment subject to this rule includes lawn mowers, edgers, trimmers, blowers, vacuums, tillers, shredders, grinders, chainsaws, riding mowers, and garden tractors.

(c) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) EQUIPMENT means any lawn and garden implement which is targeted for replacement, scrapping, or purchasing.
- (2) EQUIPMENT LIFE means the time period, in years, in which new lawn and garden equipment is expected to operate.
- (3) EXISTING EQUIPMENT means any equipment which has been operated in the Basin for at least one year, and has remaining useful life.
- (4) LAWN AND GARDEN EQUIPMENT means any implement which is designed to be used in lawn, garden, turf, and general landscape maintenance, and whose engine has been identified as having to meet the California emission standards found in California's Utility and Lawn and Garden Emission Regulation.
- (5) LOW-EMISSION EQUIPMENT means lawn and garden equipment purchased or delivered for sale prior to January 1, 1999, that utilizes ARB-certified engines which meet California's 1999 and later emission standards as specified in Title 13, California Code of Regulations.

- (6) **MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC)** means real, quantified emission reductions in accordance with the ARB's Mobile Source Credit Guidelines, approved by the Executive Officer or designee, that can be used to comply with District Regulations pursuant to subdivision (h), and are surplus to emission reductions required by U.S. EPA, or ARB regulations.
- (7) **NITROGEN OXIDES (NO_x)** means the sum of nitric oxides and nitrogen dioxides emitted, calculated as nitrogen dioxide.
- (8) **REMAINING USEFUL LIFE** is the number of years until an existing piece of equipment is removed from service, and shall be based on the difference between the age of the equipment and the expected equipment life.
- (9) **SCRAPPING** means to permanently remove existing lawn and garden equipment from service.
- (10) **VOLATILE ORGANIC COMPOUND (VOC)** is any volatile compound of carbon; excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates; ammonium carbonate, and exempt compounds as defined in District Rule 102.
- (11) **ZERO-EMISSION EQUIPMENT** means any equipment which produces zero emissions of any criteria pollutants under any and all possible operational modes and conditions.

(d) **Requirements**

- (1) In order to generate MSERCs, a person shall implement either (1)(A) or (1)(B) below.
 - (A) **Replacement of Existing Lawn and Garden Equipment**
 - (i) Before January 1, 1999, permanently scrap and replace existing lawn and garden equipment with new equipment which meets the 1995 California emission standards for Utility and Lawn and Garden Engines (Option 1).
 - (ii) Before and after January 1, 1999, permanently scrap and replace existing lawn and garden equipment with new low- or zero-emission lawn and garden equipment (Option 2).
 - (B) **Direct Sale of New Low- or Zero-Emission Equipment (Option 3)**
 - (i) After May 10, 1996 and prior to January 1, 1999, direct sale to an end user of new low-emission lawn and garden equipment.

- (ii) On or after January 1, 1991, direct sale to an end user of new zero-emission equipment.
- (2) All actions initiated under this subdivision shall require a minimum of 100 units of lawn and garden equipment. No minimum shall apply in cases where the Executive Officer or designee determines that the minimum of 100 should be lowered because the amount of MSERCs that a facility needs is less than the number of MSERCs generated when 100 units of lawn and garden equipment are scrapped and replaced.
- (3) Only one unit of each equipment type per residence shall be collected for permanent replacement. No limit shall apply for commercial users of existing equipment. Commercial users submitting their equipment for collection and scrapping must supply proof of business operation in the Basin for at least one year prior to 1995 or 1999 for equipment replaced pursuant to subparagraph (d)(1)(A).
- (4) All persons seeking MSERCs under this rule shall submit a Rule 1623 Project Plan, as specified in subdivision (e), at least one month prior to implementing any action described in this subdivision.
- (5) The Executive Officer or designee shall receive at least two weeks written notice prior to implementing projects described in subparagraph (d)(1)(A) indicating date(s), location(s) and approximate numbers and types of equipment to be scrapped.

(e) Issuance of MSERCs

(1) Rule 1623 Project Plan

In order to generate MSERCs, a person shall submit a Rule 1623 Project Plan. The Rule 1623 Project Plan shall contain the following specific information:

- (A) identification of the specific option(s) selected for generating MSERCs; and
- (B) a description of the collection and screening process for the scrapping of existing lawn and garden equipment (applicable for options described in subparagraph (d)(1)(A)), including the location of scrapping sites, and procedures to verify the operability of equipment to be scrapped; and
- (C) a description of equipment to be provided as a replacement unit including equipment type, manufacturer, model number, and engine horsepower rating; and

- (D) a description of the process to permanently render equipment engines inoperable according to subdivision (f), applicable for equipment volunteered for scrapping.
- (2) In order for the project to be eligible for MSERC generation, the Rule 1623 Project Plan must be approved by the Executive Officer or designee prior to implementation of the project.
- (3) Lawn and Garden MSERC Application

In order to generate MSERCs, a person shall submit a Lawn and Garden MSERC Application. The purpose of the Application is to document the scrapping and replacement of lawn and garden equipment, or direct sale of low- or zero-emitting equipment, pursuant to subparagraphs (d)(1)(A) and (d)(1)(B). The Application shall contain specific information including:

- (A) Proof of Replacement and Sale
 - (i) pursuant to subparagraph (d)(1)(A), proof of replacement of scrapped equipment with new low- or zero-emission equipment in the Basin meeting California Emission Standards for Utility and Lawn and Garden Engines (the proof of replacement shall include the seller's name and address, purchaser's name and address, purchase date, equipment type, manufacturer, and engine model number or equivalent information determined by the Executive Officer or designee);
 - (ii) pursuant to subparagraph (d)(1)(B), sales records of new low- or zero-emission equipment in the Basin meeting California Emission Standards for Utility and Lawn and Garden Engines (the proof of sales shall include the seller's name and address, purchase date, equipment type, manufacturer, and engine model number or equivalent information as determined by the Executive Officer or designee);
- (B) for each piece of equipment scrapped: date of scrapping, equipment type, and engine model number; and
- (C) classification of each piece of equipment scrapped and/or purchased in terms of residential or commercial application.
- (4) For the purposes of assessing fees, the Lawn and Garden MSERC Application shall be deemed a plan, and the fees shall be assessed in accordance with the provisions of Rule 309.
- (5) All MSERCs shall be issued after approval of the Lawn and Garden MSERC Application by the Executive Officer or designee and in accordance with the MSERC calculation methodology specified in subdivision (g).

- (6) MSERCs shall be designated for use on a per year basis for the number of years as specified in Table 1. Residential sales or purchases shall use the years specified as residential, while sales or purchases to commercial users shall be based on the years referenced as commercial.
- (7) MSERCs shall expire two years after the year they were designated for use.
- (8) The Executive Officer may revise the number of years specified in Table 1 to reflect new information on equipment life or remaining useful life.

(f) Rendering Engines Inoperable

Engines shall be rendered permanently inoperable by drilling a hole through the engine block. Alternative, equally effective procedures for permanently rendering engines inoperable shall be allowed, as approved by the Executive Officer or designee in the Rule 1623 Project Plan.

**Table 1
Credit Issuance (years)**

Equipment	Residential		Commercial	
	Option 1 & 2	Option 3	Option 1 & 2	Option 3
Lawnmowers	4	7	2	3
Edgers/Trimmers (4-Stroke)	4	7	2	3
Edgers/Trimmers (2-Stroke)	3	5	2	3
Shredders/Grinders	4	7	3	5
Blowers/Vacuums (4-Stroke)	4	7	2	3
Blowers/Vacuums (2-Stroke)	3	5	2	3
Chainsaws	3	5	1	1
Tillers	4	7	3	5
Garden Tractors	4	7	2	4
Riding Mowers	4	7	2	4

(g) MSERC Calculation

- (1) The total amount of NO_x, VOC, CO, and PM MSERCs generated per year for the number of years specified in Table 1, when any low- or zero-emission lawn and garden equipment is purchased, sold, replaced, or scrapped shall be based on the following calculation:

$$\text{MSERC} = (\text{Credit per Unit} \times \# \text{ Units}) / \text{TAF}$$

where:

- MSERC = Mobile source emission reduction credits (pounds/year).
- Credit = Annual emissions reduction generated by equipment type (pounds/year).
- Unit = The actual number of lawn and garden equipment purchased, sold, replaced, or scrapped.

TAF = Technical Uncertainty Adjustment Factor, for the purpose of generating credits.

- (2) The amount of Credits per Unit is to be taken from Table 2 for units used by residential users and from Table 3 for units used by commercial users. For projects involving scrapping and replacement, the amount of Credit per Unit is read directly from Tables 2 and 3. For purchase-only projects occurring prior to January 1, 1999, the Credit per Unit is the difference between the credits generated for low- or zero-emission equipment and equipment meeting the 1995 California Emission Standards for Utility and Lawn and Garden Engines. After January 1, 1999, the Credit per Unit is the difference between the credits generated for zero-emission equipment and equipment meeting the 1999 California Emission Standards for Utility and Lawn and Garden Engines.
- (3) A Technical Uncertainty Adjustment Factor equal to 1.2 shall be applied except that a Technical Uncertainty Adjustment Factor of 1.0 shall be applied for the sale of zero-emission equipment or the replacement of existing equipment with zero-emission equipment.

(h) Use of MSERCs

- (1) MSERCs may be used for any of the following applications:
 - (A) As RECLAIM Trading Credits. The Executive Officer or designee shall convert MSERCs to RTCs upon submission of MSERCs by the user.
 - (B) As an alternative method of compliance with District Regulation XI rules that have future compliance dates. MSERCs shall not be used to offset emission increases caused by the removal of emission control equipment or replacement of compliant with noncompliant materials subject to Regulation XI. MSERCs must be in existence and designated as an alternative method of compliance in advance of the compliance date.
 - (C) As a method of compliance with District Rule 2202.
 - (D) As New Source Review (NSR) offsets for emission increases at new or modified facilities that are subject to Rule 1303 (b)(2) in accordance with the provisions of Regulation XIII. Pursuant to Rule 504, no variance or series of variances, including emergency and interim variances, shall be granted for a period in excess of 90 days from the initial granting of a variance, from a permit condition implementing a Regulation XIII offset requirement if such permit condition is based upon the use of MSERCs.
 - (E) For voluntary retirement of MSERCs for air quality benefits.
 - (F) As an alternative method of compliance with any District regulations which specifically authorize the use of MSERCs.

- (2) MSERCs shall only be consumed in the air basin where the lawn and garden equipment, used to generate the MSERCs, are based.
- (3) In order to use MSERCs for the applications listed in subparagraph (h)(1)(B) of this subdivision, the user shall submit a compliance plan to the Executive Officer or designee. The user of MSERCs for applications listed under subparagraph (h)(1)(F) shall also submit a compliance plan to the Executive Officer or designee if the District regulation specifically authorizing the use of MSERCs does not already require a compliance plan. The purpose of the compliance plan is to demonstrate compliance with rule requirements, and specify the use of MSERCs.

Table 2
Annual Credits per Unit (Residential) by Type of Lawn and Garden Equipment (lbs/yr)

Equipment	Residential											
	Meeting 1995 Standards				Meeting 1999 Standards				Zero-Emission Equipment			
	VOC	NOx	CO	PM	VOC	NOx	CO	PM	VOC	NOx	CO	PM
Lawnmowers												
4-Stroke	2	0	7	0	2	0.1	18	0	3	0.1	24	0
2-Stroke	11	0	10	0	11	0	21	0.4	13	0	27	0.4
Edgers/Trimmers												
4-Stroke	1	0	4	0	1	0	8	0	2	0.1	12	0
Handheld												
2-Stroke <50 cc	1	0	3	0	2	0	7	0	3	0	8	0
2-Stroke >50 cc	1	0	5	0	2	0	7	0	3	0	8	0
Shredders/Grinders												
4-Stroke	2	0	7	0	2	0.1	17	0	3	0.1	23	0
2-Stroke	11	0	10	0	11	0	20	0.4	12	0	25	0.4
Blowers/Vacuums												
4-Stroke	1	0	4	0	1	0	9	0	2	0.1	12	0
2-Stroke	2	0	5	0	2	0	7	0	3	0	8	0
Handheld												
2-Stroke <50 cc	1	0	3	0	2	0	7	0	3	0	8	0
2-Stroke >50 cc	1	0	5	0	2	0	7	0	3	0	8	0
Chainsaws												
2-Stroke <50 cc	1	0	1	0	3	0	7	0	4	0	8	0
2-Stroke >50 cc	2	0	5	0	3	0	7	0	4	0	8	0

Equipment	Residential											
	Meeting 1995 Standards				Meeting 1999 Standards				Zero-Emission Equipment			
	VOC	NOx	CO	PM	VOC	NOx	CO	PM	VOC	NOx	CO	PM
Tillers												
4-Stroke <225 cc	2	0	10	0	3	0.1	26	0.1	4	0.2	34	0
4-Stroke >225 cc	3	0	10	0	3	0.1	26	0.1	4	0.2	34	0
Garden Tractors												
All	4	0	63	0	8	1.2	285	0.2	15	2.6	396	0
Riding Mowers												
All	1	0	20	0	3	0.4	97	0	6	0.8	136	0

Table 3
Annual Credits per Unit (Commercial) by Type of Lawn and Garden Equipment (lbs/yr)

Equipment	Commercial											
	Meeting 1995 Standards				Meeting 1999 Standards				Zero-Emission Equipment			
	VOC	NOx	CO	PM	VOC	NOx	CO	PM	VOC	NOx	CO	PM
Lawnmowers												
4-Stroke <225 cc	30	0	132	0	36	0.9	335	0	59	2.1	436	1
4-Stroke >225 cc	32	0	132	0	36	0.7	335	0	59	2.1	436	1
2-Stroke <225 cc	203	0	189	0	209	0	392	7.6	232	0.3	493	7.8
2-Stroke >225 cc	207	0	189	0	210	0	392	7.6	232	0.3	493	7.8
Edgers/Trimmers												
4-Stroke <225 cc	22	0	98	0	27	0.8	226	0	43	1.5	324	0.6
4-Stroke >225 cc	24	0	98	0	27	0.2	226	0	43	1.5	324	0.6
Handheld												
2 Stroke <20 cc	25	0	25	0	89	0	201	1.3	116	0.4	250	1.4
2-Stroke 20 - 50 cc	40	0	25	0	89	0	201	1.3	116	0.4	250	1.4
2-Stroke >50 cc	63	0	138	0	89	0	201	1.3	116	0.4	250	1.4
Shredders/Grinders												
4-Stroke <225 cc	52	0	95	0	64	2.1	457	0	91	3.7	638	1.3
4-Stroke >225 cc	60	0	95	0	66	0.5	457	0	91	3.7	638	1.3
2-Stroke <225 cc	361	0	336	0	372	0	698	13.5	399	0.5	879	13.9
2-Stroke >225 cc	368	0	336	0	373	0	698	13.5	399	0.5	879	13.9
Blowers/Vacuums												
4-Stroke <225 cc	35	0	64	0	43	0.1	305	0	68	0.1	425	0.9

Equipment	Commercial											
	Meeting 1995 Standards				Meeting 1999 Standards				Zero-Emission Equipment			
	VOC	NOx	CO	PM	VOC	NOx	CO	PM	VOC	NOx	CO	PM
4-Stroke >225 cc	38	0	64	0	43	0.1	305	0	68	0.1	425	0.8
2-Stroke <225 cc	250	0	552	0	255	0	734	3.0	277	0	825	3.3
2-Stroke >225 cc	253	0	552	0	256	0	734	3.0	277	0	825	3.3
Handheld												
2-Stroke <20 cc	57	0	280	0	212	0	707	3.0	277	0	825	3.3
2-Stroke 20 - 50 cc	94	0	280	0	212	0	707	3.0	277	0	825	3.3
2-Stroke >50 cc	148	0	552	0	212	0	707	3.0	277	0	825	3.3
Tillers												
4-Stroke <225 cc	11	0	49	0	14	0.4	126	0	19	0.8	164	0.3
4-Stroke >225 cc	12	0	49	0	14	0.3	126	0	19	0.8	164	0.3
Garden Tractors												
All	14	0	231	0	31	4.4	1039	0	51	9.3	1444	0.9
Riding Mowers												
All	9	0	210	0	28	4.2	1003	0	53	8.1	1400	0.2

- (4) The compliance plan shall contain the following information:
- (A) Total MSERCs;
 - (B) Identification of the specific rule for which the alternative method of compliance is sought;
 - (C) The period of time for the alternative method of compliance;
 - (D) Number of MSERCs used to substantiate the alternative method of compliance;
 - (E) A quantification of emissions that would result from noncompliance with the rule identified in subparagraph (h)(4)(B), and documentation supporting the emissions quantification.
- (5) Supporting documentation (applicable for MSERC usage for Regulation XI rules) shall include, but is not limited to:
- (A) a listing of equipment or materials that are the source of noncompliant VOC, NOx, CO, PM emissions associated with the rule identified in subparagraph (h)(4)(B).

- (B) a description and operating conditions of equipment listed in subparagraph (h)(5)(A) or composition and rate of use of materials listed in subparagraph (h)(5)(A).
 - (C) emission rates associated with the use of equipment or materials listed in subparagraph (h)(5)(A).
- (6) The compliance plan shall be written on a form to be specified by the Executive Officer or designee.
 - (7) The Executive Officer or designee shall approve or disapprove the compliance plan. The plan shall be disapproved unless it demonstrates that an equivalent amount of emissions reductions are obtained through the alternative method of compliance.
 - (8) MSERCs may not be used as an alternative method of compliance with Regulation XI rules until the Executive Officer or designee has approved the compliance plan.
 - (9) The user must renew the compliance plan prior to the expiration of MSERCs upon which the plan is based.

(i) Recordkeeping Requirements

- (1) Persons generating MSERCs under this rule shall be responsible for storing and maintaining data records for each lawn and garden equipment scrapped and purchased. The data records shall identify the equipment's type, manufacturer, model number, identification number, engine displacement, and horsepower, and any other necessary data. The records must also identify the individuals or businesses submitting their old lawn and garden equipment for collection, scrapping, and replacement.
- (2) A copy of data records described in paragraph (i)(1) shall be maintained by the operator of the project for at least two years from the date of MSERC issuance.

(j) Compliance Auditing and Enforcement

- (1) The Executive Officer or designee shall be afforded access in the District to audit any files or records created to comply with recordkeeping requirements, specified in subdivision (i), or require persons receiving MSERCs under this rule to submit such records to the Executive Officer or designee upon request.
- (2) Violation of any provision of this rule, including falsification of information in the Lawn and Garden MSERC Application shall be grounds for the Executive Officer to disallow or void any MSERCs resulting from or associated with the violation, by disapproving or seeking revocation of the Lawn and Garden

MSERC Application, and shall be subject to the penalties specified in the Health and Safety Code for violation of District rules.

(k) Requirements for Public Notice

Following a completeness determination of the Lawn and Garden MSERC Application for the use of MSERCs as NSR offsets only, as provided in subparagraph (h)(1)(D), the Executive Officer or designee shall:

- (1) perform the evaluations required to determine compliance with this regulation and make a preliminary written decision, as appropriate, as to whether or not MSERCs, to be used as emission reduction credits (ERCs), should be approved or disapproved. The decision shall be supported by a succinct written analysis; and
- (2) publish a notice by prominent advertisement in at least one newspaper of general circulation in the District stating the preliminary decision of the Executive Officer or designee and where the public may inspect the information. The notice shall provide 30 days from the date of publication for the public to submit written comments on the preliminary decision; and
- (3) at the time notice of the preliminary decision is published, make available for public inspection at the District office the information submitted by the applicant, the supporting analysis for the preliminary decision, and the preliminary decision to grant or deny MSERCs and the reasons therefore. The confidentiality of trade secrets shall be considered in accordance with Section 6254.7 of the Government Code.

(l) Appeal of Disapproval of MSERC Issuance

An applicant may, within 30 days of receipt of notice of disapproval, request the hearing board to hold a hearing on whether the Lawn and Garden MSERC Application was properly refused.

(m) Relationship to Intercredit Trading

- (1) MSERCs generated pursuant to this rule may be converted to other denominations, as authorized by other District rules and regulations.
- (2) MSERC credit life may be adjusted, as authorized by other District rules and regulations.

[SIP: Not SIP. Disapproved 40 CFR 52.242(a)(1)(i), 2/29/00 65 FR 10713.]