

HGB Draft Non-Road SIP Control Strategies

ID	Control Strategy	Category	Year Added	EPA PQSE	Qual. Reduction	Comment
1	Aircraft emission standards	Aircraft /Air Traffic Management	2001	Y		
2	Ordering lowest emission engines	Aircraft /Air Traffic Management	2001	Y		
3	Changes in general conformity to make provisions more realistic; Allow equipment turnover to count	Airport General Conformity	2001	N		
4	Modify regulations so credits can be generated for general conformity	Airport General Conformity	2001	N		
5	Enhanced Texas Emission Reduction Program (TERP)	Cleaner Equipment Requirements and Incentives	2005	Y		<\$7000 now
6	Aftermarket Technology and Fuel Additive Research Program	Cleaner Equipment Requirements and Incentives	2001	N		SB5 - TERP
7	Improve inventory of construction equipment; Log hours of actual equipment operation	Construction Equipment and Operations	2001	N		
8	Government construction incentives	Construction Equipment and Operations	2005	Y		
9	Develop air quality best management practices (BMPs); Use BMPs to manage emissions from construction sites, construction vehicles & wind-blown dust	Construction Equipment and Operations	2005	Y		
10	Limitations on idling of heavy-duty construction equipment	Construction Equipment and Operations	2005	Y		See 5 TERP Needs Exceptions
11	Water injection for diesel engines	Engine and Fuel Technology	2001	Y		See 5 TERP
12	Alternative-fueled equipment for all equipment types	Engine and Fuel Technology	2001	Y		See 5 TERP
13	Alternative fuel heavy-duty equipment	Engine and Fuel Technology	2001	Y		See 5 TERP
14	Lean NOX catalyst	Engine and Fuel Technology	2001	Y		See 5 TERP
15	Early introduction of low-NOX engines	Engine and Fuel Technology	2001	Y		See 5 TERP
16	Selective catalytic reduction (SCR)	Engine and Fuel Technology	2001	Y		See 5 TERP
17	Compression ignition standards for vehicles and equipment	Engine Standards	2001	N		Tier 4 implemented
18	Spark ignition standards for vehicles and equipment	Engine Standards	2001	N		Implemented
19	Lower sulfur fuels	Fuel Standards	2001	Y		No VOC or NOx benefit
20	Texas Low Emission Diesel (TxLED)	Fuel Standards	2001	N		Implemented
21	Lawnmower exchange; Trade in old gas powered equipment for discounts on zero emission models	Lawn and Garden Engines and Operations	2005	Y		
22	Lawnmower recycling programs (rebate program); replace gas mowers with electric	Lawn and Garden Engines and Operations	2005	Y		See 21
23	Promote use of cleaner lawn and garden equipment such as lower-emission four-stroke and electric-powered equipment	Lawn and Garden Engines and Operations	2001	Y		See 21
24	"Buy a Clunker" concept for small gas equipment	Lawn and Garden Engines and Operations	2001	Y		See 63
25	Disincentives such as fines if caught mowing during Ozone Alerts	Lawn and Garden Engines and Operations	2001	Y		
26	Ban equipment such as two-stroke engines	Lawn and Garden Engines and Operations	2001	Y		
27	No-mowing days	Lawn and Garden Engines and Operations	2005	Y		
28	Grass cutting; Public works will delay cutting grass till 6 pm on ozone action days	Lawn and Garden Engines and Operations	2005	Y		
29	Landscape ordinance for nonresidential areas	Lawn and Garden Engines and Operations	2005	Y		Xerascap
30	Use of auxiliary power units (APUs) for locomotives operating; Controls for locomotives are pre-empted by Federal law, but voluntary controls might have some success	Locomotive Engines and Operations	2005	Y		See 5 TERP
31	Accelerated purchase of Tier II locomotive engines	Locomotive Engines and Operations	2005	Y		See 5 TERP
32	Electrification of rail switching yards	Locomotive Engines and Operations	2005	Y		
	http://www.trainweb.org/southwestshorts/txumartinlake.html					

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33	Efficiency improvements on In-Use Class 1 Rail Equipment (R11)	Locomotive Engines and Operations	2005	Y		HGA VMEP
34	Limitations on idling of locomotives	Locomotive Engines and Operations	2005	Y		HGA VMEP
35	ARB Portable engine registration and rulemaking	Cleaner Equipment Requirements and Incentives		Y		TCEQ is researching
36	California Marine Vessel Auxiliary Engine Rule	Marine Vessels		Y		TCEQ is researching
37	California Cargo Handling Equipment Rule	Cargo Handling Equipment		Y		TCEQ is researching
38	Clean Fuel Option: Expand TxLED Use. The use of TxLED could occur in source categories not currently required to implement the fuel use including marine and other engines.	Fuel Standards				
39	Provide full funding for the National Retrofit Program	Cleaner Equipment Requirements and Incentives	2008			RAQPC PS
40	Allow private companies to apply for NRP grants	Cleaner Equipment Requirements and Incentives	2008			RAQPC PS
41	Allow NRP grants to cover incremental costs for TERP or CMAQ retrofits	Cleaner Equipment Requirements and Incentives	2008			RAQPC PS
42	Establish emissions trading program for nonroad vehicles (DERC)	Cleaner Equipment Requirements and Incentives	2008			RAQPC PS
43	Allow use of TERP funds for administrative costs. Specifically, this can be used to help small companies without the time or resources to apply and track retrofits	Cleaner Equipment Requirements and Incentives	2008			RAQPC PS
44	Provide cooperative grant assistance to encourage small companies (<20 employees who do not have the resources to manage grants alone to apply for TERP	Construction Equipment and Operations				RAQPC PS
45	Development of a Port of Houston Clean Air Action Plan that seeks to minimize emissions from ships, cargo handling equipment, on-road drayage trucks, and port-related rail.	Cleaner Equipment Requirements and Incentives				RAQPC PS
46	adopt policies and programs to increase the number of clean construction machines used on public works projects.	Cleaner Equipment Requirements and Incentives				RAQPC PS