

REVISED ACTION PLAN
FOR
CONTROL OF AIR POLLUTION
IN
SOLAPUR



Maharashtra Pollution Control Board
Kalpataru Point, 3rd Floor
Sion (East), Mumbai 400 022

PART B
New Action Plan for Future

Action Plan

1] The Solapur Municipal Corporation has a fleet of 127 buses which provide local public transport. 25 buses however are decommissioned by the SMTC . There are 59 buses on the road, 43 buses are off the road due to various reasons.

2] Most of the trucks and other big transport vehicles coming from outstation are presently traveling through the heart of Solapur city. The Municipal Corporation has constructed one by-pass at National Highway No. 13 to divert this heavy vehicular traffic to the bypass road. SMC has decided to improve the conditions of the roads in the city with the help of Maharashtra State Road Development Corporation.

3] The emission from the two wheelers is serious problem. The reduction in the number of two wheelers is not possible unless the users themselves decide to do so or switch over to the public transport for their commuting needs.

It may be desirable to register only 4 stroke two or three wheelers that shall reduce the existing emission of CO. An amendment in the Motor Vehicles Act for registering any 4 stroke Two wheeler, auto rickshaw and also converting two stroke two wheeler & auto rickshaw to 4 wheeler is necessary to achieve these objectives. Transport Department is preparing a proposal in this direction.

4] Fuel: – The public sector oil companies in Solapur are currently supplying diesel with a sulphur content of 0.05% and Petrol with Benzene content of 3 % and .05% sulphur from 1.1.2004. As per the current road map on fuel quality, the oil companies shall start supplying diesel with 0.035% sulphur and Petrol with 1% Benzene and 0.05% sulphur from April 2005. There is however no plan under consideration of the the oil companies to set up retail outlet for Auto LPG or CNG.

Although the road map prepared by MoRTH does not specifically include Solapur city, actions are being initiated or already taken to implement the same road

map for Solapur city as a part of strategy to reduce the air pollution. A road map prepared by MoRTH and the new action plan to control the particulate pollution in Solapur are attached as **Annexure-III & Annexure- IV**, respectively.

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ABBREVIATIONS

SMC	-	Solapur Municipal Corporation
CPCB	-	Central Pollution Control Board
MPCB	-	Maharashtra Pollution Control Board
MoEF	-	Ministry of Environment & Forest
CIRT	-	Central Institute of Road Transport
SMT	-	Solapur Municipal Transport
ESR	-	Environment Status Report
RTA	-	Regional Transport Authority
RTO	-	Regional Transport Officer
ECE	-	Emissions Control Equipments
D.G. Set	-	Diesel Generating Set
D.P. Road	-	Development Project Road
I & M Practice	-	Inspection and Maintenance Practice
PUC	-	Pollution under Control
MoRT	-	Ministry of Road Transport
MoP	-	Ministry of Petroleum
RO	-	Retail Outlet

Annexure I

Results of Benzene Monitoring of Solapur City on 10.01.2004

Location	Sampling Period (min)	Sample Volume (Lit)	Benzene $\mu\text{g}/\text{cum}$
Near Karigar Petrol pump	60.00	12	969.44
Near Chitale Hospital	60.00	12	174.17
Saraswati Chowk	60.00	12	234.17
Shivaji Chowk	30.00	6	658.33
Gujrat Rubber Factory	30.00	6	23.34
W.I.T College Campus	60.00	12	642.50

Results of Benzene Monitoring of Solapur City on 09.04.2004

Location	Sampling Period (min)	Sample Volume (Lit)	Benzene $\mu\text{g}/\text{cum}$
Near Karigar Petrol pump	60.00	7.8	84.07
Near Chitale Hospital	60.00	7.8	27.22
Saraswati Chowk	60.00	7.8	20.18
Shivaji Chowk	60.00	7.8	22.51
Center of Akkalkof MIDC	60.00	7.8	19.29
W.I.T College Campus	60.00	7.8	29.74

Annexure II**INFORMATION OF AIR POLLUTING INDUSTRIES IN SOLAPUR**

Sr. No	Name of Industry	Category & Scale	Source of emission	Fuel	Fuel Qty/day	No. of Working hrs.	Air Pollution Control equipments provided	SPM mg/Nm ³	SO ₂ mg/Nm ³
1	Kirloskar Oil Engines. Shinshakti, Kumthe	LSI / RED	Furnaces , Sand Blasting, Cupola	Furnace oil, Coal, LDO, HDO	600 lit 850 lit 1500 lit	8 hrs	Scrubbers, Dust collectors, Filter bags provided to Chimney	473.89	40.53
2	Siddheshwar SSK Ltd. ,Kumthe	LSI / RED	Boiler	Baggase	1150 MT	24 hrs in a season	Fly ash arrestor provided to chimney	285.58	194.13
3	S.M. Rubber Industries.Hotgi Road Ind. Estate	SSI / RED	Boiler	Wood / Diesel	100 MT	8 hrs	Dust Collector provided to chimney	657	155.73
4	Laxmi Foundry 16,17, Hotgi Road Ind. Estate	SSI / RED	Cupola	Wood, Coal, Coke	5T/M 15T/M	8 hrs	Chimney provided	695.45	139.73
5	Govt. Milk Scheme Saat Rasta, Solapur	MSI / RED	Boiler	LDO	100 lit	8 hrs	Chimney provided	--	--

6	Banda Dyeing. E-105, MIDC Akk. Road	SSI / RED	Boiler	Wood	300 kg	8 HRS	Dust Collector provided to chimney	280.29	145.06
7	Precision Cam Shaft Ltd. E-90, MIDC Akk. Road	MSI / RED	Electric Arc Furnace	--	--	--	Chimney provided Bag filters & Dust collector for fettling unit.	199.37	110.4
8	Aditi Pharmaceuticals. E- MIDC Akk. Road	MSI / RED	Boiler	LDO	200 lit	8 hrs	Chimney & dust collector & Bag filters provided	294.37	12.66
9	B.B. Knitting B- MIDC Akk. Road	SSI / RED	Boiler	Wood	1 MT	8 hrs	Dust Collector provided to chimney	--	--
10	Su-vi Chemicals B-10 MIDC Akk. Road	SSI / RED	Boiler	LDO / FO	700 lit	8 hrs	Chimney provided	26.83	112.3
11	Smurthi Organics 273, MIDC Akk. Road	SSI / RED	Boiler	LDO / FO	1000 lit	8 hrs	Chimney provided	247.9	158.93
12	Gujarat Reclaim & Rubber Ind. C 10/1, MIDC Akk. Road	MSI / RED	Boiler	LDO / FO	360 lit	12 hrs	Chimney scrubbing system provided	508.84	128.53
13	Dhyphale Textiles E-4 MIDC Akk. Road	SSI / RED	Boiler	Wood	300 kg	8 hrs	Dust Collector provided to chimney	--	--
14	Pulgam Textiles MIDC Akk. Road	SSI / RED	Boiler	Wood	200 kg	8 hrs	Chimney provided	--	--

15	Muhot Textile MIDC Akk. Road	SSI / RED	Boiler	Wood	100 kg	8 hrs	Chimney provided	--	--
16	Laxmi- Narayan Sizing Works	MSI / RED	Boiler	Wood, Baggasse	10 T	8 hrs	Dust Collector provided to chimney	221.8	148.31
17	Shinto Textile E-2 MIDC Akk. Road	SSI / RED	Boiler	Wood	150 kg	8 hrs	Chimney	--	--

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Annexure - III

ROAD MAP FOR VEHICULAR POLLUTION CONTROL

FUEL QUALITY:

- 0.05% Diesel Sulfur from 01.01.2004
- 0.035% Diesel Sulfur from 2005
- 0.005% Diesel Sulfur from 2010
- 1% Petrol Benzene from 2005.

EMISSION NORMS :

- ◆ Bharat Stage-II to be implemented from 1.06.2004.
- ◆ Euro-III equivalent norms to be implemented from 2005
- ◆ Euro-IV equivalent norms to be implemented from 2010

▪ **All city buses & Taxis:**

From 1.4.2004 – Vehicles registered before 1.4.1996 to have minimum 1996 emission norms and those registered after 1.4.1996 to have applicable emission norms on date of registration.

From 1.4.2008 – Vehicles registered before introduction of Bharat Stage –II norms to have minimum India 2000 (Bharat Stage-I) emission norms and those registered after introduction of Bharat Stage-II norms to have applicable emission norms on date of registration.

▪ **All 3 Wheelers (Autos/Tempos):**

From 1.4.2004 – Vehicles registered before 1.4.2000 to have minimum 1996 emission norms and those registered after 1.4.2000 to have applicable emission norms on date of registration.

From 1.4.2008 – Vehicles registered before 1.4.2000 to have minimum India 2000 (Bharat Stage-I) emission norms and those registered after 1.4.2000 to have applicable emission norms on date of registration.

▪ **All Inter Stage buses/Trucks originating or culminating in city:**

From 1.4.2006 – Minimum of 1996 emission norms in respect of vehicles registered before 1.4.2000.

From 1.4.2007 – Minimum India 2000 (Bharat Stage-I) norms in respect of buses registered after 1.4.2000.

From 1.4.2008 – Minimum India-2000 (Bharat Stage-I) norms in respect of vehicles registered before 1.4.2005.

From 1.4.2011 – Minimum Bharat Stage-II norms in respect of vehicles registered after 1.4.2005.

ROAD MAP FOR IN-USE VEHICLES

- I & M for all categories of vehicles to be put by 01-04-2006.
- Performance checking for cat converters and conversion kits to be put in place by 01-04-2005.
- Augmentation of city public transport system to be completed by 01-04-2005.

Annexure -IV**Status of Action Needed to control the Air Pollution in SOLAPUR as per EPCA format**

Issue	Proposed Action	Dead Line	Implementing Agency	Status of ongoing activity
Emission norms and automotive fuel quality	Bharat- II Emission Norms		MoRTH	Implemented from 01.06.2004
	Bharat II sulphur fuel	Proposed to introduce Bharat II by 01.04.2004	MoRTH	The public sector oil companies are currently supplying diesel with a Sulphur content 0.05 % and Petrol having Benzene content 3 % and sulphur 0.05% since 1/1/2004. Compliance to Bharat stage II emission norms for vehicles to be newly registered in Solapur City has been made compulsory with the effect from 1/6/2004.
	1% benzene containing fuel	2004	Petroleum Ministry	Oil companies are supplying petrol containing 3% benzene and 0.05% sulphur.

	Euro III equivalent norms & 350 ppm sulphur diesel	2010	MoRTH	-----
	Ban on supply of loose 2T oils at petrol pumps	Continuous efforts.	Petroleum Ministry	No loose 2T oil is sold for two or three wheelers
Alternative fuels	Introduction of alternative fuels like CNG/LPG depending upon supply		Petroleum Ministry	Currently there is no Auto LPG outlet in Solapur. Based on demand for Auto LPG oil companies may set up such Auto LPG outlet in the city. There is no CNG outlet or network or the infrastructure available for bringing in CNG in Solapur. There is no proposal under consideration of the oil companies at this stage to supply CNG to the vehicles in the city.
	Fiscal incentives for alternative fuels and vehicles	24 months	Government of Maharashtra (Home Dept, Transport)	The decision to grant fiscal incentives to the vehicles using alternative fuels shall be governed by the State policy. The local Sub Regional Transport office does not have powers to make policy or sanction the incentives themselves.

Public transport system and transportation plan	Augmentation of city public transport system	To be completed by April, 2005	SMT/RTO	Solapur Municipal transport has a fleet of 127 buses out of which 25 buses have been scrapped. There are 59 buses on the road as on today, 43 buses are off the road buses as reported by the Transport Manager Solapur municipal Transport.
In-use vehicles				As mentioned above.
	Higher road tax for older motor vehicles	Within 12 months	Government of Maharashtra (Home Dept., Transport)	The Motor Vehicles Department is preparing a proposal for levy of "Green Tax" on the vehicles for submission and consideration of the Govt. of Maharashtra.
	All types of vehicles of 15 year old required to be phased out, within 2 years	2 years	SMT/RTO in consultation with MoRTH and MoEF	Solapur Municipal Transport has already scrapped 25 buses which were more than 15 years old. Plans are also afoot to identify and phase out the old buses however the financial position of the SMT is precarious and hence the phase out program may get delayed. MoRTH has not issued any notification.

	All types of vehicles which are not conforming emission norms to be phased out. (Phasing out of vehicles other than SMT buses)	2 years	SMT/RTO in consultation with MoRTH	The new test procedure to measure pollution has been laid down from 1-10-2004.
	“All city buses should conform to 1996 or India 2000 or Bharat Stage II norms from April 1, 2004 and India 2000 or Bharat Stage II or Euro III equivalent norms from April 1, 2008.”		SMT/RTO in consultation with MoRTH	Solapur Municipal Transport has not been able to take steps to achieve the goals as per the MoRTH time table due to their financial position. The Municipal Commissioner has proposed for Govt. aid/grant to purchase new buses. SMT needs minimum RS.5 crores per year for successive 4 years so that they can purchase minimum 120 buses in a span of 4 years.
	“All Inter State buses should conform to India 2000 or Bharat Stage II norms from April 1, 2004 and from April, 2008 they		RTO in consultation with MoRTH	RTO is monitoring this issue on a regular basis

	should conform to minimum India 2000 or Bharat Stage II or Euro III equivalent norms.”			
	“All taxis should confirm India 2000 or Bharat Stage II norms from 10.4.2004 and India 2000 or Bharat Stage II or Euro III equivalent norms from 1.04.2008.”		RTO in consultation with MoRTH	RTO is regularly monitoring this aspect and is willing to issue permits to open the new PUC Centers.
	All three wheeler should conform to India 2000 or Bharat Stage I or proposed Bharat Stage II emission norms from 1.04.2004 and from 1.04.2008 they should conform to India 2000 or proposed Bharat Stage III emission norms.”		RTO in consultation with MoRTH	RTO has a regular monitoring program and no permits are issued unless the vehicles comply with the MoRTH norms.

<p>Vehicle inspection programme</p>	<p>New PUC checking system</p> <p>I & M for all categories of vehicles</p> <p>Performance checking for catalytic converters and conversion.</p>	<p>April, 2004</p> <p>April, 2006</p> <p>April, 2005</p>	<p>RTO</p>	<p>Vehicles are inspected for issue of renewal of certificate of fitness. Special checking Drivers are organized in all parts of the District to check & report MV's defaulting in renewal of fitness certificate. Penal action is taken against defaulting vehicles as per provision of Motor Vehicle Act 1988. Similarly for convenience of public Motor Vehicle inspector tours the district & organizes camps so as to facilitate Motor Vehicle Owners from far away places for producing their M.V.'s for Inspection for renewal of fitness certificate.</p> <p>There are 8 PUC centers for checking petrol vehicles, 5 for diesel vehicles & 4 which can check both petrol & diesel vehicles. There is no restriction on opening of new PUC center. Also new rules to govern PUC centers are on the anvil of State Government. During every renewal of permission of PUC center through</p>
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Adulteration of automotive fuels	Checking of fuel adulteration	Continuous efforts	Petroleum Ministry/Food & Civil Supplies Dept., Govt. of Maharashtra/DSO	This is being done by the District Supply officer in consultation with the oil companies
Control of emissions from Industrial sources	Organization of inventory of the polluting industries		MPCB	The total industries in Solapur city are 633 out of that 7 are large scale, 4 are medium scale and 622 are small scale industries, respectively. Besides, category wise 157 industries belong to Red category (highly polluting), 74 are Orange category (medium polluting) and 402 are Green category industries (Non-polluting).
	Identification and closure of clandestine/unauthorized industrial operation or shifting		MPCB	There are about 17 air polluting industries in Solapur city. Continuous efforts are being made to enforce the installation of pollution control systems in the industries and the D.G.Sets. To minimize the pollution load from industrial sources, MPCB has already started implementing CREP for 17

				categories of industries having more pollution potential with a specific time frame.
	Identification of areas where industries from non-conforming zones shall be shifted	Within 12 months	MPCB	There is no proposal to shift the industries under consideration of the Industries department or MPCB in Solapur
Control of emissions from commercial sources	Compliance to standards in DG sets		SMC,MPCB	Routine continuous efforts and regular monitoring of the air emissions. Board is issuing NOC stipulating conditions as per guidance of MoEF/CPCB.

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