SECTION-2 : KEY OBJECTIVES, SUCCESS INDICATORS AND TARGETS FOR AD (STE) : 2013-14
(PROGRESS UPTO 31/3/2014)

Column 1	Column 2	3	Column 4	5		6					Column 7		
Objective	Weight	Actions	Success Indicator	Unit	Weight	Target / Criteria Value					Achievement	Raw score	Weighted raw score
						Excellent	Very Good	Good	Fair	Poor			
						100%	90%	80%	70%	60%			
Objective 1: Environment Protection	40	**Action 1** 100% ETPs/APCDs in all category of industries.	100 % Large, medium & SS red category units.	No.(ETP)	5	9	8	7	6	5	8*	90	4.5
				No. (APCD)	5	28	25	22	20	17	6**	100	5
		Action 2 Pollution Control through electronic surveillance	i) CCTV cameras near ETP/ APCD in 100 industries connected with Board website	No.(ETP)	4	50	45	40	35	30	51	100	4
				No. (APCD	4	50	45	40	35	30	42	80	3.2
			ii) To record one reading per week per industry regarding operation of ETP & emissions of black smoke	% reading of ETP in operation /no black smoke									
				ETP	2	100	90	80	70	60	100	100	2

				Stack	2.0	100	90	80	70	60	98	90	1.8
		Action 3 Pollution Control through common e-waste facility.	Grant of approval to collection centre within 30 days. Grant of approval for collection cum dismantling facility within 30 days.	Days Days	4 -	10 -	15 -	20 -	25 -	30 -	11*** -	80 -	3.2
		Action 4 To provide demonstration plants/common effluent treatment plants	Introduction of Green Fuel (CNG/ RLNG) in place of conventional fuels in Mandi Gobindgarh & Khanna Area and agreement to be got signed with GAIL by the industry.	No. of agreements made by GAIL for 50 industries in addition to 200 agreements already made. No of tapping points /pipeline reached to 100 industries	0.5 **** 0.5 ****	50 100	45 90	40 80	35 70	30 60	10 7	20 7	0.1 0.035

			CETP for Dyeing unit (Bahadur Ke Road, Ludhiana) 75% civil Work Complete. i) Earth work and foundation. ii) Construction of equalization, chemical dosing & mixing tank. iii) Construction of primary clarifier. iv) Aeration tank. v) Secondary **clarifier**. CETP Dyeing unit (at Tajpur Road site, Ludhiana) **Module-1 (For Tajpur Road, Cluster Units)** 75% Civil Work. i) Earth work and foundation. ii) Construction of	No. No.	2 1	Completion of all five components Completion	Completion of four components Completion	Completion of three components Completion	Completion of two components Completion	Completion of one components Completion	**2**	**40**	**0.8**

			equalization, chemical dosing & mixing tank. iii) Construction of iv) primary clarifier. v) Aeration tank. vi) Secondary clarifier. **Module-II (For Focal Point Cluster Units)** 75% Civil Work. i) Earth work and foundation. ii) Construction of equalization, chemical dosing & mixing tank. iii) Construction of primary clarifier. iv) Aeration tank. v) Secondary clarifier.	No.	1	of all five components Completion of all five components	of four components Completion of four components	of three Components Completion of three components	of two components Completion of two components	of one component Completion of one components	**2** **0**	**40** **0**	**0.4** **0**

		Action 5 Monitoring	a) Monitoring of ETP/APCD/Ambient Noise.										
			i) Monitoring of ETPs	% age of samples conforming to standards	2	80	70	60	50	40	**81%**	**2**	**2**
			ii) Monitoring of APCDs.	% age of samples conforming to standards	2	80	70	60	50	40	**95%**	**2**	**2**
			iii) Ambient Air Monitoring	% age of samples conforming to ambient air standards	2	80	70	60	50	40	**87%**	**100**	**2**

			b) River Monitoring										
			i) Sutlej	**% age of Samples conforming to quality standard 'C'**	1	80	70	60	50	40	76	90	0.90*****
			ii) Beas	**% age of Samples conforming to quality standard 'C'**	1	80	70	60	50	40	100	100	1******
			iii) Ghaggar	**% age of Samples conforming to quality standard 'D'**	1	80	70	60	50	40	100	100	1*******
Total					**40**								**33.93 (84.82 %)**

Note:

* **There were 9 industries which had not installed effluent treatment plants (ETP), out of which 8 Bag Tanning units of Malerkotla area have been closed by issue directions u/s 33-A of Water Act, 1974 and the ETP of 1 industry is under installation.**

** **There were 28 industries in the State, which had not installed Air Pollution Control Device as on 01.04.2013, out of which 6 industries had installed APCD during the year 2013-14 and the remaining 22 coupla units of Batala area had been issued directions u/s 31-A of the Air Act, 1981 for closure of their units. Therefore, achievement for installation of APCD for these units is 100%.**

*** **3 applications were received by the Board for grant of approval to collection centers, out of which 2 applications were decided within 11 days. 3rd application was decided in 46 days, so the average weightage has been taken as 80% (90+90+60 = 240 / 3 = 80)**

**** **The weight of action 4 has been reduced from 6 (4+2) to 1 (0.5+0.5) as the industries at Mandi Gobindgarh and Khanna area could not use CNG due to its higher cost than other fuels resulting into increase in the cost of production. However, for adopting good burning practices, the Punjab Pollution Control Board had engaged PSCST for Reverbratory Furnaces of Rolling Mills for recovery of heat, so that there should be proper combustion of fuel at the start up of furnace.**

***** **There are 18 cities / towns, which are discharging their wastewater directly / indirectly into River Sutlej, out of which 09 towns / cities have already installed and commissioned the STPs and the installation work of STPs in 09 no. of towns / cities is at advanced stage and likely to be commissioned by 30.09.2014 (5 nos) and 30.06.2015 (4nos). As such, the river water quality has been proposed as class 'C' for calculating the score.**

****** **There are 11 cities / towns, which are discharging their wastewater directly / indirectly into River Beas, out of which 05 towns / cities have already installed and commissioned the STPs and the installation work of STPs in 06 no. of towns / cities is at advanced stage and the same shall be commissioned by 30.09.2014 (3 nos), 31.12.2014 (1 no) and 31.03.2015 (2 nos). Therefore, the quality of water has been proposed as class C for calculating the score.**

******* **The quality of water entering in the territorial jurisdiction of Punjab from the State of Haryana mainly remains as of Class 'D' and most of the times it also remains of class 'D' in the State of Punjab due to which the score of this activity has been calculated by considering River Water Quality of Class 'D' as proposed in the RFD for the year 2013-14.**

SECTION-3 : TREND VALUES OF THE SUCCESS INDICATORS :2013-14

Objective	Actions	Success Indicator	Unit	Actual Value for 2010-11	Actual Value for 2011-12	Actual Value for 2012-13	Achieved value for 2013-14	Remarks
Objective 1: Environment Protection	**Action 1** 100% ETPs/ APCD in all categories of industries.	100 % Large, medium & SS red category units	Nos. (ETP)	1882	1773	158	9	There were 9 industries which had not installed effluent treatment plants (ETP), out of which 8 Bag Tanning units of Malerkotla area have been closed by issue of directions u/s 33-A of Water Act, 1974 and the ETP of 1 industry is under installation.
			Nos. (APCD)	4826	4914	125	28	There were 28 industries in the State, which had not installed Air Pollution Control Device as on 01.04.2013, out of which 6 industries had installed APCD during the year 2013-14 and the remaining 22 cupola units of Batala area had

								been issued directions u/s 31-A of the Air Act, 1981 for closure of their units. Therefore, achievement for installation of APCD for these units is 100%.
	Action 2 Pollution Control through electronic surveillance	i) CCTV cameras near ETP/ APCD in 100 industries connected with Board's website.	Nos. (ETP) Nos. (APCD)	- -	- -	- -	51 42	New activity was incorporated for RFD 2013-14.
		ii) To record one reading per week per industry regarding operation of ETP and emissions of black smoke.	% of ETP in operation / no black smoke. ETP APCD	- -	- -	- -	100 100	

	Action 3 Pollution Control through common e-waste facility	Grant of approval to collection centre within 30 days	Days	-	-	-	3	New activity was incorporated for RFD 2013-14 and the number will depend upon new applications received.
		Grant of approval for collection cum dismantling facility within 30 days	Days	-	-	-	0	New activity was incorporated for RFD 2013-14 and the number will depend upon new application received.
	Action 4 To provide demonstration plants/ Common Effluent Treatment Plants	Introduction of Green Fuel (CNG/ RLNG) in place of conventional fuels in Mandi Gobindgarh & Khanna Area	Nos. Agreements to be made by GAIL for providing connection)	**-**	-	200	10	As the green fuel (CNG/RLNG) is proving to be much costlier, as such, the industries are not ready to make new agreements because of high cost of CNG instead of other fuels and resulting into high production cost and non viable for the industries.

			Nos. Actual tapping point / pipeline reach)	-	-	-	7	As the green fuel (CNG/RLNG) is proving to be much costlier, as such the industries are not ready to make new agreements because of high cost of CNG instead of other fuels and resulting into high production cost and non viable for the industries.
		CETP Dyeing unit (Bahader Ke Road)	% work done	DPR prepared	Finalization of specification and design	EC approved, funds arranged contractor finalized allotment made, work started	40%	Completion of earth work, foundation and start of construction of equalization tank, collection tank and multi effect evaporator.

		CETP Dyeing unit (at Tajpur Road site) Module-1 (For Tajpur Road, Cluster Units) 75% Civil Work. i) Earth work and foundation. ii) Construction of equalization, chemical dosing & mixing tank. iii) Construction of iv) Primary clarifier aeration tank. v) Secondary clarifier. **Module-2** (For Focal Point Cluster Units) i) Earth work and foundation. ii) Construction of equalization, chemical dosing & mixing tank. iii) Construction of	Nos. -	DPR prepared -	EC was at Final stage, DNIT prepared -	EC granted -	40% of Civil Work -	Completion of earth work, foundation and start of construction of 2 nos clarifloculattors, 1 sludge thickner and aeration tank (SBR). New Activity was incorporated for RFD 2013-14. The tender document has been prepared and the same has been published in

		primary clarifier. iv) Aeration tank. v) Secondary clarifier.	Nos.					the leading newspapers and the said document shall be opened on 28th June, 2014 for prebid. The work shall be allotted by 05.07.2014.
	Action 5 Monitoring	a) Monitoring of ETP/APCD/Ambient Noise. i) Monitoring of ETPs ii) Monitoring of APCDs. iii) Ambient Air Monitoring	% age of samples conforming to standards % age of samples conforming to standards % age of	- -	- -	- -	81% 95% 87%	In order to control the pollution from the industries / other organizations, regular monitoring of ETP and APCDs and Ambient Air Quality is required to be carried out. As such, new activities viz., monitoring of ETP, APCD and Ambient Air Monitoring have been added

			samples conforming to ambient air standards	-	-	-		in the RFD, 2013-14.
				-	-	-		
		b) **River Monitoring**	% age of samples conforming to quality standards					In order to maintain the Water Quality of the Rivers, it is imperative that their quality is monitored regularly and there is need to check the trend in the quality of water of these rivers. Thus, the new activity namely River Monitoring has been added in the RFD 2013-14.
		i) Sutlej		-	-	-	76	
		ii) Beas		-	-	-	100	
		iii) Ghaggar		-	-	-	100	

SECTION 4

Description & Definition of success indicators & proposed measurement methodology

S.N.					
1.	**PPCB**	a) 100% ETPs in all category of industries	To ensure installation of effluent treatment plants of desired efficacy in 100% industries	There are 286 nos. of total large scale (red, orange & green) industries, 102 nos. of medium scale (red, orange & green) industries and 1792 nos. of small scale (red) industries, which require installation of adequate effluent treatment plants	All these industries have installed effluent treatment plants but in some of the cases these plants are not adequate to bring down the pollution load to the norms prescribed by the Board. In some case, these industries are also required to upgrade the effluent treatment plant so as to meet the stringent norms prescribed by either MoEF or the State pollution Control Board. The success indicator will measure the percentage of industries,

					which have upgraded the effluent treatment plants so as to meet the stringent norms as per the method of disposal adopted by the industries for their treated trade effluent. There were 9 industries which had not installed effluent treatment plants (ETPs), out of which 8 Bag Tanning units of Malerkotla area have been closed by issuing directions u/s 33-A of Water Act, 1974 and the ETP of 1 industry is under installation.
		b) 100% APCDs in all category of industries	To ensure installation of air pollution control devices of desired	There are 321 nos. of large scale (red, orange & green) industries, 152 nos. of medium	Almost all these industries have installed air pollution control devices but in

			efficacy in 100% of industries	scale (red, orange & green) industries and 8766 nos. of small scale (red) industries, which require installation of adequate air pollution control devices	some of the cases these plants are not adequate to bring down the pollution load to the norms prescribed by the Board. In some cases, these industries are also required to upgrade the Air Pollution Control Devices so as to meet the stringent norms prescribed by MoEF. The success indicator will measure the percentage of industries, which have upgraded the air pollution control devices so as to meet the norms. There were 28 industries in the State, which had not installed Air Pollution Control Device as on

					01.04.2013, out of which 6 industries had installed APCD during the year 2013-14 and the remaining 22 coupla units of Batala area had been issued directions u/s 31-A of the Air Act, 1981 for closure of their units. Therefore, achievement for installation of APCD for these units is 100%
2.	**PPCB**	Pollution Control through electronic surveillance			
		a) CCTV cameras near ETP/ APCD in 100 industries connected with Board website		The PPCB has pursued the polluting industries/ common facilities to install CCTV cameras, which are attached with website of the PPCB and the operation of pollution control systems of these industries is monitored	The Board has got installed CCTV cameras in 51 industries on ETPs and in 42 industries on APCDs / stack. During the period 2013-14

				regularly. It has proven to be a very good tool for monitoring the industries while sitting at one place.	
		b) To record one reading per week per industry regarding operation of ETP & emissions of black smoke		For keeping the surveillance on the operation of ETP / CETP and APCDs, the readings were taken from CCTV cameras attached to CETPs, ETPs & APCDs	806 readings were taken from CCTV cameras attached to ETP and all the times ETPs were found in operation. Similarly, 510 readings were taken from CCTV cameras attached to APCD / stack and on 10 times the black smoke was observed from the Chimneys.
3.	**PPCB**	Pollution control through common E-Waste facilities	Grant of approval to collection centre within 30 days	The E-Waste (Management & Handling) Rules, 2011 are meant for environmentally sound handling and disposal of E-Waste. After coming into force these rules, the Board	So far, 3 facilities were granted permissions under the said Rules for E-Waste collection Centers prior to 01.04.2013 and during

				played a proactive role to authorize E-Waste Collection Center and E-Waste collection -cum-dismantling facilities	the period 01.04.2013 to 31.03.2014, 3 more facilities have been granted permissions under the rules. These facilities will help to channelize the e-waste in the State.
4.	**PPCB**	To provide demonstration plants/common effluent treatment plants			
		a) Introduction of Green Fuel (CNG/ RLNG) in place of conventional fuels in Mandi Gobindgarh & Khanna Area and agreement to be got signed with GAIL by the industry		The Board is pursuing the industries to adopt cleaner technologies and waste minimization practices. Mandi Gobindgarh Town & a part of Khanna area have been declared as critically polluted areas, as such the Board took the step to pursue the industries of these areas to use CNG being cleaner fuel instead of	The proposal regarding use of CNG as fuel could not give much success as the use of CNG is costlier than other fuels resulting into increase in cost of production and consequently its non-viability in the market. However, for adopting good burning practices, the Punjab

			coal / furnace oil. The GAIL Authorities have already provided outlet for providing CNG to the industries of these areas	Pollution Control Board had engaged PSCST for Reverbratory Furnaces of Rolling Mills for recovery of heat, so that there should be proper combustion of fuel at the start up of furnace.
		b) CETP for Dyeing unit (Bahadur Ke Road, Ludhiana) 75% civil Work Complete. vi) Earth work and foundation. vii) Construction of equalization, chemical dosing & mixing tank. viii) Construction of primary clarifier. ix) Aeration tank. x) Secondary clarifier.	Although, all the dyeing industries of Ludhiana have installed their individual treatment plants and these industries are operating their effluent treatment plants but in order to monitor these industries at single outlet and ensure the compliance of the standards at all the times, it was considered imperative to install CETP for these industries.	The construction work of CETP of capacity 15 MLD has already been started.

			Therefore, 1 CETP of capacity 15 MLD for Bahadurke Road Dyeing Industries Cluster was planned to be installed.	
		c) CETP Dyeing unit (at Tajpur Road site, Ludhiana) **Module-1 (For Tajpur Road, Cluster Units)** 75% Civil Work. i) Earth work and foundation. ii) Construction of equalization, chemical dosing & mixing tank. iii) Construction of primary clarifier. iv) Aeration tank. v) Secondary clarifier.	Although, all the dyeing industries of Ludhiana have installed their individual treatment plants and these industries are operating their effluent treatment plants but in order to monitor these industries at single outlet and ensure the compliance of the standards at all the times, it was considered imperative to install CETP for these industries. Therefore, 1 CETP of capacity 50 MLD for Tajpur Road and Rahon Road Dyeing	The construction work of CETP of capacity 50 MLD has already been started.

			Industries Cluster was planned to be installed.	
		Module-II (For Focal *Point Cluster Units)* 75% Civil Work. i) Earth work and foundation. ii) Construction of equalization, chemical dosing & mixing tank. iii)Construction of primary clarifier. iv) Aeration tank. v) Secondary clarifier.	Although, all the dyeing industries of Ludhiana have installed their individual treatment plants and these industries are operating their effluent treatment plants but in order to monitor these industries at single outlet and ensure the compliance of the standards at all the times, it was considered imperative to install CETP for these industries. Therefore, 1 CETP of capacity 40 MLD for Focal Point Dyeing Industries Cluster was planned to be installed.	The start of construction work of CETP of capacity 40 MLD is at advanced stage.
5.	**PPCB**	a) Monitoring of ETP/APCD/Ambient Noise. i) Monitoring of ETPs.	The Board is	During this period, 1615 samples of trade effluent

			regularly monitoring the industries which have installed ETPs so as to ensure the compliance of environmental standards.	from different industries were collected and out of which 1314 sample were conforming to the standards.
		ii) Monitoring of APCDs.	The Board is regularly monitoring the industries which have installed APCDs so as to ensure the compliance of environmental standards.	During this period, 1917 samples of stack emissions from different industries were collected and out of which 1832 sample were conforming to the standards.
		iii) Ambient Air Monitoring	The Board is monitoring the ambient air quality (AAQ) under National Ambient Monitoring Programme at 27 no. of stations for SPM, SO_2 and NOx in the State of Punjab. This parameter is an indicator to assess the quality of AAQ in different	Out of 27 stations, the values of RSPM (PM_{10}) in 7 stations (NFL, PACL, C-PYTE, Sangrur, Faridkot, Rasulpur and Mukandpur) have been remained within the prescribed standards of 100 ug/m^3. Further the values of No_X

			towns and cities.	& SO_2 in all the monitoring stations have been found within the prescribed limits of 80 ug/m^3.
		b) River Monitoring		
		i) Sutlej	The water quality of River Sutlej is monitored at **15** stations to ascertain the quality of water of the river and to have check on point sources entering into the water body so that wholesomeness of water of the river is maintained.	There are 18 cities / towns, which are discharging their wastewater directly / indirectly into River Sutlej, out of which 09 towns / cities have already installed and commissioned the STPs and the installation work of STPs in 09 no. of towns / cities is at advanced stage and likely to be commissioned by 30.09.2014 (5 nos) and 30.06.2015 (4nos). As such, the river water

				quality has been proposed as class 'C' for calculating the score.
		ii) Beas	The water quality of River Beas is monitored at **09** stations to ascertain the quality of water of the river and to have check on point sources entering into the water body so that wholesomeness of water of the river is maintained.	There are 11 cities / towns, which are discharging their wastewater directly / indirectly into River Beas, out of which 05 towns / cities have already installed and commissioned the STPs and the installation work of STPs in 06 no. of towns / cities is at advanced stage and the same shall be commissioned by 30.09.2014 (3 nos), 31.12.2014 (1 no) and 31.03.2015 (2 nos). Therefore, the quality of water has been proposed as

				class C for calculating the score.
		iii) Ghaggar	The water quality of River Ghaggar is monitored at **12** stations to ascertain the quality of water of the river and to have check on point sources entering into the water body so that wholesomeness of water of the river is maintained.	The quality of water entering in the territorial jurisdiction of Punjab from the State of Haryana mainly remains as of Class 'D' and most of the times it also remains of class 'D' in the State of Punjab due to which the score of this activity has been calculated by considering River Water Quality of Class 'D' as proposed in the RFD for the year 2013-14.

SECTION 5

SPECIFIC PERFORMANCE REQUIREMENTS FOR OTHER DEPARTMENTS

Departments from whom support needed	
Department of Industries	Timely submission of proposals for common effluent treatment plant.
Department of PSIEC	Pro active performance of SPV for construction & operation of common effluent treatment plant.
Department of Local Govt.	Proper operation and maintenance of sewage treatment plant

SECTION 6

OUTCOME / IMPACT OF ACTIVITIES OF DEPARTMENT

PPCB, being regulatory authority, implementing the various provisions of the Water Act, 1974 ; Air Act, 1981; EPA, 1986 and other rules framed there under. With the implementation of these provisions, PPCB has been succeeded in controlling the pollution in various sectors. The success indicator, targets and achievements as mentioned for the year 2013-14 definitely shall bring the environmental quality within the prescribed norms. Lot of improvements are expected in terms of Ambient Air Quality and river water quality in view of the parameters as prescribed by CPCB / MoEF. The eco system and water quality in the drains / rivers are likely to be restored. The CETPs, being installed by textile dyeing industries of Ludhiana, are based on stringent standards, which have been prescribed keeping in view its usages for longer period of 50 years so that it may not affect the fertility of soil and quality of food grains.