ENVIRONMENTAL AUDIT REPORT

OF

Awadhesh Pratap Singh University Rewa, Madhya Pradesh, India-486003

April 2018 to March 2019

Submitted to :

Awadhesh Pratap Singh University Rewa, Madhya Pradesh, India-486003

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Environment Consultant:

PARIVESH ENVIRONMENTAL ENGINEERING SERVICES., LUCKNOW

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ENVIRONMENT AUDIT REPORT (2018-19)

of

Awadhesh Pratap Singh University Rewa (M.P)

(A)	**General**	
1.	Name of the Organisation	Awadhesh Pratap Singh University Rewa (M.P)
2.	Location	Anantpur, Rewa
3.	Registered Office Address:	Awadhesh Pratap Singh University Rewa (M.P)
4.	Month & Year of establishment	20 July 1968
5.	No. of Employees:	Total Employees-320 Nos
	Teaching staff	Total-150 Nos
	Non- Teaching staff	Total -170
6.	No. of electrical connections with service numbers	390. Details **enclosed as Annexure-I**
	Total connected load	440.25 K. W
7.	Number of D.G. Set & their capacity:	2 Nos 20 KW 45 KW
8.	Name of Vice Chancellor:	Dr. Rajkumar Acharya
9.	Telephone Nos:(Residential & Official) Web site of university/Institute:	9425635585 www.apsurewa.ac.in
	E-mail of university/Institute	regapsu@gmail.com
	E-mail VC:	vcapsu@gmail.com
10.	Working Day:	6 Day (Monday to Saturday)
11.	Has the institute obtained ISO 9000/ISO 14000/OSHAS 18000/Any other EM accreditation/Certification recognition? Give details	No

(B)	**WATER**			
1.	The quantity of water consumed per day	320 KLD		
2.	The quantity of waste water	224 KLD		
3.	Method of treatment and disposal	Septic tank and Soak pit		
4.	The open area available for disposal of the effluent	Yes. Septic tank and Soak pit has been designed & constructed		
5.	Whether the quality of treated effluent meets the specified norms: -If no, the extent of deviation and reasons thereof	Yes		
(C)	**AIR**			
1.	No. of the flue gas stacks, their height (from ground level) nature & consumption of fuel	**Stack attached to DG**	**Height of the stack (m)**	**Fuel**
		20 kVA	5	Diesel
		45 kVA	5	Diesel
2.	The quality of emission from each flue gas stack & the extent of deviation from them	Refer Annexure – II, Well within Limits		
3.	The ambient air quality within the university premises.	Refer Annexure – III, Well within Limits		
4.	The details of air pollution control measures for all flue gas stacks:	Adequate stack height as per CPCB Specifications		
5.	Improvement in emission quality since previous environmental audit based on performance evaluation of air pollution management system	Well & adequate		
(D)	**SOLID WASTE**			
1.	The quantity, sources of solid waste from each source over the last three years	Refer Annexure – IV		
2.	The method of storage, treatment & disposal solid waste:	As per Municipal Solid Wastes (Management & Handling) Rules, 2000		

(E)	**RESOURCE RECOVERY**	
1.	The details regarding resource recovery including treated effluent for recycle/reuse from environmental pollution control system	Yes
(F)	**HEALTH**	
1.	Whether any hazard is involved in the manufacturing or from the work environment: Yes/No If yes, provide details thereof:	No
2.	Whether Institute has pre-employment & periodical medical examination facilities: Yes/No If yes, provide details thereof:	Yes Pre-medical check-up is done for all employees and medical check-up of all employees is carried out periodically
3.	Whether health records are maintained regarding adverse effect on the health of workers: Yes/No If yes, provide details thereof	NA
4.	Whether institute has appointed a factory medical officer: Yes/No	Yes
5.	Details of medical facilities available. Dispensary/Ambulance/Hospitals/First Aid box.	First Aid Box – Yes Small Dispensary – Yes Ambulance – Yes Hospital – Empanelled basis
6.	Whether sanitary facilities like water closets, urinals, bathroom are provided & are satisfactory	Yes. Adequate & Satisfactory sanitary facilities are provided.
(G)	**ACCIDENTS**	
1.	The details of accidents in the Institute if any & remedial measures taken	No accidents in the University
(H)	**SAFETY MEASURES**	
1.	General Environment of the University	Housekeeping- Good Dustiness -Less

		Lighting -Good Ventilation- Good
2.	The details of facilities for disaster management/gas leakage	Not applicable
3.	Whether on site/off site emergency plans are prepared and are being implemented/upgraded regularly; please give detail	Not applicable
4.	Whether records of occupational hazards are maintained?	Not applicable
5.	Preventive measures adopted to minimize occupational hazard.	Yes
(I)	**REMEDIAL MEASURES**	
1.	The details of sources; monitoring & measures taken for control of noise pollution in & around the Institute premises	Refer Annexure – V
2.	The measures taken for prevention treatment & control of odour nuisance in & around the Institute premises:	No source of odour nuisance in & around the University. About 40.70 % area; out of the total area is covered by plantation
(J)	Energy/resource Conservation Measures	• 795 LED bulbs have been installed in the university building during the last 5 years • Installed Solar panel of 25 KW capacity • University has a water reservoir an area of 18.46 acres to conservation of water through recharge i.e., Rainwater harvesting system (RWH)

		• About 40.70 % area; out of the total area is covered by plantation • Local/native trees have been planted under greenbelt

Recommendations:

- Rainwater pits can be prepared at appropriate places identified and restoration activities may be initiated to sustain the health of ponds in and around the campus.
- Specific waste management plans should be adopted to manage solid waste in the campus
- Vehicle pooling should be promoted among both students and faculty and use of bicycles should be promoted as a policy of university
- Fire safety instruments should be installed in all the buildings
- Green habitat concept should be adopted for all the building construction activities of the University in future, which may help a long way in reducing energy usage, increasing aesthetic appeal of the buildings and class rooms, besides reducing carbon foot print. Further, more green spaces should be established all around the campus around larger trees and shades for the benefit of the students.
- The public lights within the campus may be run with solar panels and the replacement of existing lights should be done with LED lamps
- Installation of STP of appropriate capacity for treatment of domestic sewage may be consider
- Installation of water guards or sensors at overhead water tanks to avoid overflowing losses.
- Proper and timely maintenance of plumbing

- The precautions like water sprinkling or use of enclosures should be made to reduce the particulate matter in air during any construction activity
- Silent zone rules be followed
- The noise producing activities should be done during the holidays or after the office hours

It is here is declared that all the information submitted in with respect to this format is correct and we will be responsible for any lapse regarding incorrect or incomplete information.

Environmental Auditor

(Ramsushil Mishra)

FIGURE-1: PHOTOGRAPHS SHOWING PLANTATION WITHIN THE UNIVERSITY CAMPUS

FIGURE-2: PHOTOGRAPHS SHOWING WATER RESERVOIR

FIG-3: PHOTOGRAPHS SHOWING INITIATIVE TOWARD SWACHATA ABHIYAN

FIG-4: PHOTOGRAPHS SHOWING SOLAR PANEL WITHIN UNIVERSITY CAMPUS

ANNEXURE-I

अवधेश प्रताप सिंह विश्वविद्यालय, रीवा (म०प्र०)

-विश्वविद्यालय परिसर स्थित भवनों में लगे कुल (39) विद्युत कनेक्शनों के सर्विस क्रमांक एवं भार की जानकारी निम्नानुसार है।-

क्रमांक	सर्विस क्रमांक	भार	क्रमांक	सर्विस क्रमांक	भार
1	1402033024	5 KW.	27	1402032957	8 K.W.
2	1402019383	36 K.W.	28	1402032989	12 K.W.
3	1402032634	14 K.W.	29	1402032638	38.4 KW.
4	1402033033	10 K.W.	30	1402033022	5 KW.
5	1402032505	4 K.W.	31	1402032635	40 KW.
6	1402033039	4 K.W.	32	1402033019	12.3 K.W.
7	1402033028	2.238 K.W	33	1402032504	1. K.W.
8	1402032503	3.73 K.W.	34	1402028479	11 K.W.
9	1402033027	8 K.W.	35	1402028037	5 K.W.
10	1402033021	2.73 K.W.	36	1402033025	10 K.W.
11	1402032506	5 K.W.	37	1402032637	18.15 K.W.
12	1402032508	5 K.W.	38	1402033026	9 K.W.
13	1402033017	5 K.W.	39	1402032604	22.7 K.W.
14	1402017870	10 KW.		Total	440.25 K.W.
15	1402033018	1 K.W.			
16	1402033038	1 K.W.			
17	1402032988	58 K.W.		13/4/2023	13-4-2023
18	1402033036	3 K.W.			
19	1402033037	6 K.W.			
20	1402033041	5 K.W.			
21	1402033040	5 K.W.		Director IQAC (NAAC) A.P.S. University, Rewa (M.P.)	
22	1402033020	10 K.W.			
23	1402012961	10 KW.			
24	1402033035	2 K.W.			
25	1402032987	20 K.W.			
26	1402032986	12 K.W.			

ANNEXURE-II(A)

DETAILS OF DG SET STACKS

Sr. No.	Stack attached to DG Set (KW)	Fuel	Height of the stack
1	20	Diesel	5.0
2	45	Diesel	5.0

ANNEXURE – II (B)

THE QUALITY OF EMISSION FROM DG SETS STACK

S. No	Parameters	Test Method	Results		Units	Limit as per EPA 1986
			20 KW	45 KW		
1	Particulate Matter (as PM)	IS : 11255 (P-1)	0.06	0.11	gm/kw-hr	0.3
2	Sulphur Dioxide (as SO2)	IS : 11255 (P-2)	0.8	6.8	gm/kw-hr	-
3	Oxides of Nitrogen (as NOx)	IS : 11255 (P-7)	0.36	0.42	gm/kw-hr	4.7
4	Carbon monoxide (as CO)	IS: 13270: 1992	0.25	0.28	gm/kw-hr	3.5

ANNEXURE-III

AMBIENT AIR QUALITY WITHIN THE UNIVERSITY PREMISES

Date of sampling: 09.03.2019 to 10.03.2019

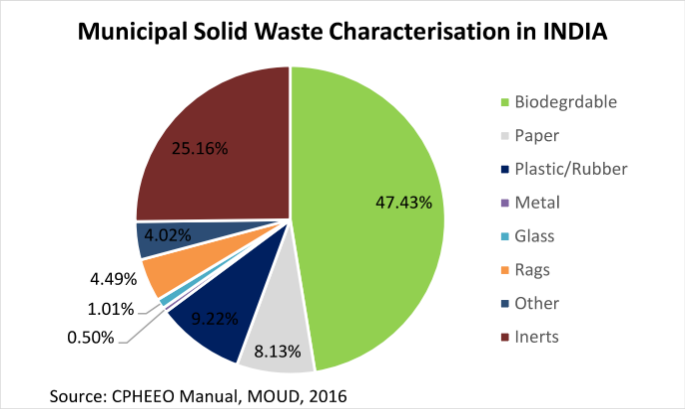
S.No.	PARAMETER	Test Methods	Results		Units	CPCB standards
			Main gate of university	Administrative building		
1	Particulate Matter (PM_{10})	IS 5182: Part 23:2006 (Reaff. 2012)	72.6	69.4	µg/m³	100.0
2	Particulate Matter ($PM_{2.5}$)	IS 5182 (P-24): 2019	40.2	38.8	µg/m³	60.0
3	Sulphur dioxide (as SO_2)	IS 5182 : Part 2 :2001 (Reaff.2017)	10.8	9.2	µg/m³	80.0
4	Nitrogen Dioxide (as NO_2)	IS 5182 : Part 6 :2006 (Reaff.2017)	19.7	16.3	µg/m³	80.0
5	Carbon Monoxide (as CO)	IS 5182 : Part 10 :1999 (Reaff.2019) (NDIR)	0.75	0.67	mg/m³	2.0

NOTE: Limit as per CPCB notification, New Delhi, 18th November 2009, for Ambient air quality

ANNEXURE –IV

QUANTITY, SOURCES & COMPOSITION OF SOLID WASTE GENERATION

Generation of 1304 kg/day municipal waste from domestic activities. out of this 1304 kg/day, 625 kg is biodegradable and rest 679 kg are non-biodegradable. The solid waste generated is being first segregated and collected in different bins as plastic, glass, paper and other waste separately and disposed off as per Solid Waste Management Rules (SWM) 2016. Composter with capacity 679 kg/day are provided at site for treating biodegradable waste. The non-biodegradable waste is being sent to Municipal Council disposal site.



ANNEXURE – V

DETAILS OF NOISE MONITORING

S.No.	Location	Date of monitoring	Noise level in dB(A)		CPCB standards	
			Day	Night	Day	Night
1	Near main gate	24.02.2019	63	53	65	55
2	Near Administrative office of university	24.02.2019	52	48	55	45
3	Near boys hostel	24.02.2019	50	45	55	45
NOTE: Limit as per the Principal Rules were published in the Gazette of India, vide S.O. 123(E), dated 14.2.2000 and subsequent amendments						

ANNEXURE – VI

DETAILS OF QUALITY OF GROUND WATER

Sl. No.	Parameters	Bore well Uni. Campus	Requirement/limit as per IS 10500:2012	
			Desirable	Permissible
1	pH (at 25^0C)	7.12	6.5 -8.5	No Relaxation
2	Conductivity (µmho/cm)	822	--	--
3	Colour (Hazen)	<5	5	15
4	Turbidity, NTU, Max	<1	1	5
5	Total Dissolved Solid , mg/l	527	500	2000
6	Alkalinity (as CaCO3), mg/l	205	200	600
7	Total Hardness (asCaCO3)mg/l	320	200	600
8	Calcium (as Ca) ,mg/l	70	75	200
9	Magnesium (as Mg) , mg/l	28	30	100
10	Chloride (as Cl), mg/l	57	250	1000
11	Iron (as Fe), mg/l	<0.3	0.3	No Relaxation
12	Fluoride, (as F), mg/l	0.45	1	1.5
13	Sulphate (as SO4) ,mg/l	108	200	400
14	Arsenic (as As) mg/l,	<0.01	0.01	0.05
15	Sodium(as Na) mg/l,	14.2	--	--
16	Potassium(as K) mg./l,	3.1	--	--
17	**Total Coliform Count, MPN/100ml	Absent.	Shall not be detectable in any 100 ml sample	