

**Half Yearly Compliance Report of the Terms & Conditions of
Hazardous Wastes Authorization issued by Pollution Control Board, Assam
Period: 01.01.2017 to 30.06.2017**

1. The authorization shall comply with the provisions of the Environment (Protection) Act, 1986 and rules made there under from time to time.
Status: **Complied.**
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Pollution Control Board, Assam.
Status: **Complied.**
3. Brahmaputra Valley Fertilizer Corporation Ltd. shall not rent sell, transfer or otherwise transport the hazardous waste without obtaining prior permission of Pollution Control Board, Assam Disposal shall be done to the authorized units only to which Pollution Control Board, Assam has issued authorization. They should submit agreement/receipt copies from the authorized vendors for disposal of Hazardous Wastes so far made within one month of issuing of this Authorization.
Status: **Complied. Used oil has been sold to authorized unit only. However, spent catalyst could not be sold due to no demand and Arsenic & Chromate wastes generated earlier could not be disposed as there is no common TSDF in the neighbouring area. Inventory position of each hazardous wastes as on 30.03.2017 is enclosed in Annexure-I.**
4. Any unauthorized change in personnel equipment as working conditions as mentioned in the application by the person authorized shall constitute a breach of this authorization.
Status: **Complied.**
5. It is duty of the authorized person to take prior permission of the Pollution Control Board, Assam to close down the facility.
Status: **Complied.**
6. An application for renewal of an authorization shall be made as laid in Rule 5(7).
Status: **Will be complied at the time of renewal of authorization.**
7. M/s. Brahmaputra Valley Fertilizer Corporation Ltd. shall ensure that no adverse impact on the Air, soil and water including ground water take place during transportation & storage.
Status: **Complied.**
8. Vehicle used for transportation shall be in accordance with the provision under the Motor Vehicle Act' 1988 and rules made there under.
Status: **Complied.**

9. The Vehicles used for transportation should be dedicated for transportation of Hazardous wastes only and shall not be used for any other purpose.
Status: **Complied.**
10. M/s. Brahmaputra Valley Fertilizer Corporation Ltd. shall be fully responsible for any type of spillage of Hazardous wastes during transportation.
Status: **Complied.**
11. M/s Brahmaputra Valley Fertilizer Corporation Ltd. shall provide the Transporter with the relevant information in Form 11 regarding the hazardous nature of the wastes and measures to be taken In case of an emergency.
Status: **Complied.**
12. M/s. Brahmaputra Valley Fertilizer Corporation Ltd. shall prepare 6 (six) copies of the manifest in from 13 as per the colour codes (Rules 21).
Status: **Complied.**
13. M/s. Brahmaputra Valley Fertilizer Corporation Ltd. must submit the report on any accident occurs at their facility immediately to the state Pollution control Board, in form 14 of the Hazardous waste (Management Handling & Trans-boundary Movement) Rule 2008.
Status: **To be complied in case of accident.**
14. M/s. Brahmaputra Valley Fertilizer Corporation Ltd. shall maintain records of Hazardous Wastes generation, storage and disposal in Form-3 and prepare and submit to the State Pollution Control Board along with Annual Return containing details specified Form 4 on or before 30th day of June every year.
Status: **Complied.**
15. M/s. Brahmaputra Valley Fertilizer Corporation Ltd. must submit an environmental statement in Form-V under provision of Rule 14 of the Environment (Protection) Rule 1986 to the State pollution Control Board on or before 30th day of September every year.
Status: **Complied.**
16. M/s. Brahmaputra Valley Fertilizer Corporation Ltd. must comply with the provision of the Manufacture, Storage and Import of Hazardous Chemical Rules 1989.
Status: **Complied.**
17. M/s Brahmaputra Valley Fertilizer Corporation Ltd. Ltd must follow all safety precautions during handling & transportation of Hazardous Wastes.
Status: **Complied.**

18. M/s Brahmaputra Valley Fertilizer Corporation Ltd. may store the Hazardous Wastes for a period not exceeding ninety days and shall maintain a record of sale, transfer, storage & disposal of such wastes and make these records available for inspection.
Status: **Complied. However, for spent catalyst, Arsenic & Chromate wastes, time limit could not be adhered due to no demand and non-availability of any common TSDF in the near-by area respectively.**
19. M/s Brahmaputra Valley Fertilizer Corporation Ltd. must comply with the provision of the Emergency Planning, Preparedness and Response for Chemical Accidents Rule 1996.
Status: **Complied.**
20. Any other conditions for compliance as per the guidelines issued by the Ministry of Environment & Forest GOI, New-Delhi & Central Pollution Control Board, Delhi must be complied. The Board has the liberty to suspend/cancel the authorization issued under the Hazardous Waste (Management, Handling & Trans boundary) Movement Rule 2008 at any time without referring, if the authorised person fails to comply with any of the conditions of the authorization or with any provisions of the Environment (Protection) Act & Rules 1986
Status: **Agreed to comply.**

(S Sarkar)
Dy. General Manager (TS)

1. Description of Hazardous Wastes

Physical form with description	Chemical form	Total volume and weight (approx.)	
A. Metal Wastes – Spent catalysts	Contains CuO, ZnO , NiO , Cr ₂ O ₃	201960 Kg	
	HT Catalyst		102500 Kg
	LT Catalyst		66400 Kg
	PR/SR Catalyst		16660 Kg
	Methanation Catalyst		16400 Kg
B. Chromate Sludge	Cr ₂ O ₃	40929.7 Kg	
C. Arsenic Sludge	Contains As ₂ O ₃ & As ₂ O ₅ and Calcium arsenate along with ceramic saddles and containers & liners.	850 M ³	
D. Used Oil	Used lube oil of different varieties	12370Ltr.	
E. Waste Oil	Natural Gas condensate and crude oil	NIL	

2. Details of disposal, if any:

Name & Address of the Facility	Type of Hazardous Waste recycled	Authorized recycling/ utilization/ Co-processing capacity (MTA)	Quantity Recycled/ Utilized/ Co-processed (MT)
M/s Modern Lube Industries, Guwahati-781034	Used lube oil	WB/OTWA/HW-108/09-10/166 dated 07.06.2016	Used Oil-19.50 KL (Sold on 24.01.2017)
M/s Bristol Petroleum Pvt. Ltd. Kolkata-700137	Waste Oil (emulsion)	132/25(HW)-881/2000-01 (Pt.-II) dated 24.06.2016	Waste Oil-15.00 KL (Sold on 12.01.2017)

Precautions taken to ensure safe containment:

Arsenic and Chromate wastes are presently being kept in 7 Nos. sealed RCC/brick lined chambers and these chambers were constructed one-by-one over the years after the commissioning of Namrup-II plants. Arsenic and Chromate wastes, which contain saddles, ceramic pall rings, discarded crushed containers etc., were dumped in these chambers/tanks from time to time as and when found necessary. The declared quantity of wastes is the approximate assessed quantity since these chambers are in sealed condition to prevent any leakage and wastes were dumped over a span of about 20 years.

There is no further generation of arsenic and chromate waste in the last 10 – 20 years due to change over of process route. These wastes are required to be permanently disposed off in a Treatment Storage Disposal Facility (TSD) or Secured Landfill but since no common TSD has been constructed in the North Eastern Region by the Pollution Control Boards, so it has not been possible so far to dispose off the above wastes.

Other hazardous wastes are disposed to CPCB authorized parties. Analysis report of ground water near the hazardous waste dumping site is given below.

Analysis of Ground Water (Tube Well Water)

Period: Jan– Jun' 2017

Sl. No	Date/ Time	Location	Amm. N ₂	Cr ⁺⁶	Arsenic	pH	Total Cr.
1	05.01.17 1000 Hrs	Near Delay Pond	NT	NT	NT	7.10	NT
2	05.01.17 1000 Hrs	Near Arsenic Sludge Storage Area	NT	NT	NT	7.00	NT
3	06.02.17 0935 Hrs	Near Delay Pond	NT	NT	NT	6.95	NT
4	06.02.17 0935 Hrs	Near Arsenic Sludge Storage Area	NT	NT	NT	7.20	NT
5	07.03.17 0930 Hrs	Near Delay Pond	NT	NT	NT	7.20	NT
6	07.03.17 0930 Hrs	Near Arsenic Sludge Storage Area	NT	NT	NT	7.10	NT
7	04.04.17 1000 Hrs	Near Delay Pond	NT	NT	NT	7.20	NT
8	04.04.17 1000 Hrs	Near Arsenic Sludge Storage Area	NT	NT	NT	7.10	NT
9	08.05.17 1000 Hrs	Near Delay Pond	NT	NT	NT	7.10	NT
10	08.05.17 1000 Hrs	Near Arsenic Sludge Storage Area	NT	NT	NT	7.20	NT
11	05.06.17 1030 Hrs	Near Delay Pond	NT	NT	NT	7.20	NT
12	05.06.17 1030 Hrs	Near Arsenic Sludge Storage Area	NT	NT	NT	7.10	NT

ANNEXURE – II**AMBIENT AIR ANALYSIS REPORT**
(Conc. of Pollutants in Microgram/M³)

Date	Duration (hrs.)	Location	SO ₂	NO _x as NO ₂	PM ₁₀	PM _{2.5}
Norm as per NAAQS 2009 (µg/M ³)			< 80	< 80	<100	<60
07.01.17	24	Station - 2	3.96	13.97	66.59	28.93
07.01.17	24	Gandhi Maidan	1.72	7.66	34.72	
08.01.17	24	Station - 2	4.01	14.08	66.80	
08.01.17	24	Kendriya Vidyalaya	1.71	8.00	35.31	
16.01.17	24	Station - 2	3.74	13.42	58.88	
16.01.17	24	Gandhi Maidan	1.80	7.41	32.92	
17.01.17	24	Station - 2	3.68	13.08	65.07	
17.01.17	24	Kendriya Vidyalaya	1.77	7.64	32.37	
25.01.17	24	Station - 2	3.78	12.48	62.88	
25.01.17	24	Gandhi Maidan	1.87	7.83	52.58	
26.01.17	24	Station - 2	3.93	12.78	62.67	
26.01.17	24	Kendriya Vidyalaya	1.73	7.65	49.54	
07.02.17	24	Station - 2	3.70	12.91	62.58	33.21
07.02.17	24	Gandhi Maidan	1.72	9.42	54.10	
08.02.17	24	Station - 2	3.92	13.05	68.28	
08.02.17	24	Kendriya Vidyalaya	1.66	9.51	51.20	
16.02.17	24	Station - 2	4.07	13.65	59.35	
16.02.17	24	Gandhi Maidan	1.89	9.94	50.45	
17.02.17	24	Station - 2	4.21	13.81	62.58	
17.02.17	24	Kendriya Vidyalaya	1.82	9.93	51.39	
25.02.17	24	Station - 2	4.01	13.34	66.13	
25.02.17	24	Gandhi Maidan	1.87	9.44	57.48	
26.02.17	24	Station - 2	4.06	13.52	61.48	
26.02.17	24	Kendriya Vidyalaya	1.75	9.28	51.46	
10.03.17	24	Station - 2	3.11	12.30	53.10	33.14
10.03.17	24	Gandhi Maidan	1.48	8.01	36.69	
11.03.17	24	Station - 2	3.14	12.70	55.18	
11.03.17	24	Kendriya Vidyalaya	1.61	8.25	37.30	
18.03.17	24	Station - 2	3.09	13.03	60.00	
18.03.17	24	Gandhi Maidan	1.38	7.61	46.22	
19.03.17	24	Station - 2	3.00	12.02	53.03	
19.03.17	24	Kendriya Vidyalaya	1.26	6.30	35.42	
27.03.17	24	Station - 2	4.44	12.42	51.55	
27.03.17	24	Gandhi Maidan	1.28	7.11	37.07	
28.03.17	24	Station - 2	3.59	11.12	47.06	
28.03.17	24	Kendriya Vidyalaya	1.18	6.33	26.92	

Date	Duration (hrs.)	Location	SO ₂	NO _x as NO ₂	PM ₁₀	PM _{2.5}
Norm as per NAAQS 2009			< 80	< 80	<100	<60
05.04.17	24	Station - 2	4.08	15.84	59.94	37.34
05.04.17	24	Gandhi Maidan	1.69	8.00	43.08	
06.04.17	24	Station - 2	4.14	15.73	67.82	
06.04.17	24	Kendriya Vidyalaya	1.61	7.96	40.30	
17.04.17	24	Station - 2	3.62	16.39	60.43	
17.04.17	24	Gandhi Maidan	1.57	7.95	44.14	
18.04.17	24	Station - 2	3.37	15.90	60.45	
18.04.17	24	Kendriya Vidyalaya	1.39	7.38	33.62	
26.04.17	24	Station - 2	4.05	16.53	63.57	
26.04.17	24	Gandhi Maidan	1.63	8.03	37.66	
27.04.17	24	Station - 2	3.87	16.39	56.62	
27.04.17	24	Kendriya Vidyalaya	1.54	7.85	33.44	
07.05.17	24	Station - 2	3.69	15.79	59.30	
07.05.17	24	Gandhi Maidan	1.72	8.31	42.60	
08.05.17	24	Station - 2	3.65	15.05	60.93	
08.05.17	24	Kendriya Vidyalaya	1.70	8.49	42.41	
14.05.17	24	Station - 2	3.52	15.53	54.99	
14.05.17	24	Gandhi Maidan	1.50	7.81	44.51	
15.05.17	24	Station - 2	3.27	15.21	52.86	
15.05.17	24	Kendriya Vidyalaya	1.37	7.39	37.11	
22.05.17	24	Station - 2	2.85	10.87	29.45	
22.05.17	24	Gandhi Maidan	1.20	6.82	22.54	
23.05.17	24	Station - 2	2.83	10.66	28.68	
23.05.17	24	Kendriya Vidyalaya	1.07	6.20	15.51	
06.06.17	24	Station - 2	3.72	14.18	38.85	24.92
06.06.17	24	Gandhi Maidan	1.23	7.41	30.77	
07.06.17	24	Station - 2	3.81	14.45	39.45	
07.06.17	24	Kendriya Vidyalaya	1.34	7.15	30.32	
16.06.17	24	Station - 2	2.96	11.98	33.40	
16.06.17	24	Gandhi Maidan	1.22	7.39	23.02	
17.06.17	24	Station - 2	3.01	12.70	35.43	
17.06.17	24	Kendriya Vidyalaya	1.23	7.41	23.46	
27.06.17	24	Station - 2	2.66	11.00	27.98	
27.06.17	24	Gandhi Maidan	1.11	6.18	15.23	
28.06.17	24	Station - 2	2.61	11.05	26.92	
28.06.17	24	Kendriya Vidyalaya	0.98	5.89	13.27	