COMPLIANCE OF CONDITIONS GIVEN IN ENVIRONMENT CLEARANCE NO. :J-11011/901/2007-IA-II(I) DATED 28.12.2023 - FOR MANUFACTURING OF FORTIFIED LIQUID BORONATED CALCIUM NITRATE (LBCN) PLANT WITH PRODUCTION CAPACITY OF 1100 KLPA (3.333 KLPD) IN EXISTING GSFC COMPLEX

Sr. No.	Conditions	Compliance Status (Period Oct '23 to March '24)
		(Period Oct 23 to March 24)
1.1	SPECIFIC CONDITION	
(1)	Adequate stack height as per CPCB/SPCB guidelines shall be provided. Stack emission levels shall be stringent than the existing standards.	
(2)	CEMS shall be installed and connected to SPCB/CPCB Servers.	
(3)	Effective fugitive emission control measures shall be adopted in the process, transportation, packing etc.	
(4)	Transportation of materials by rail/conveyor belt, wherever feasible, shall be explored.	<b>Noted.</b> The product shall be packed and stored in plant area. No need of long distance transfer within the premise.
(5)	As proposed, Natural gas shall be used as a primary fuel, fuels like LSHS (Low Sulphur Heavy Stock), Hydrocarbon Fuel & High-Speed Diesel (HSD) shall be used as per requirements of the equipment.	<b>Complied,</b> The production process is carried out at atmospheric temperature hence no need of Natural Gas as a primary fuel during the process.
(6)	The best available technology shall be used.	Complied, The technology is developed by GSFC in house R & D Dept.
(7)	The PP shall develop/mainatin greenbelt over an area of 40 % within premises within a year of the grant of EC. The saplings selected for the plantation should be of sufficient height preferably 6-ft. The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities	Complied. The total area of premises was 328 ha. Out of which 0.65 Ha. was diverted for Bullet Train Project and hence total area is 327.35 ha. The green belt area is 133.35 Ha which is 40.73 % of total plot area in which 7.46 Ha. has been developed in GSFC owned land in Ranoli, Vadodara located 3.63 km, NW away from the project.  Total 187133 number of trees/plantation available in existing Green Belt (GB) in GSFC complex and 15500 numbers of trees/plantation available in existing GB in Ranoli Kotar land.

				GSI C Lillineu, Vauduala		
	carried out during previous year.					
		Sr. No.	Particulate	Total Area (Ha)		
		1	Green Belt (In Plant)	39.84		
		2	Green Belt (Township)	86.05		
		3	Green Belt in Ranoli (Kotar lan Nandesari	7.46		
			Total GB area (40.73%)	133.35		
			Total area	327.35		
(8)	The PP shall also develop/ maintain avenue plantation over an area of 7.46 Ha. in GSFC owned land in Ranoli, Vadodara located 3.63 km, NW away from the project.  The transportation load on roads shall be within their	by GSFC. O Vadodara Con Ranoli, Vado Complied. T	ut of total green area, 125.89 Ha complex and 7.46 Ha. has been odara located 3.63 km, NW away The transportation load on roads	is within their carrying capacity and		
	carrying capacity and adequate width of roads shall be maintained inside the industrial premises.		dth of roads is maintained inside	·		
(10)	There shall be no wastewater generation as water generated shall be consumed in product.  0.6 KLD domestic sewage shall be treated as per existing practices i.e., treatment in STP & reused for horticultural purposes. Total wastewater generation from the project	product hence water will be However, for	treated in existing STP.  The other existing plants of	ess will be carried forward with Final ted during process and the domestic GSFC complex, Treated effluent		
	after expansion shall not exceed 17259.7 KLD (Industrial Effluent-13637 KLD; Domestic Sewage- 3622.7 KLD).			discharged to Effluent Conveyance		
	Effluent from the process plant and associated facities					
	will be treated in the ETP. Treated Industrial effluent from	7 tvg. Quantit	y or Emdont Bloomarged for Goto	501 20 to Water 21.		
	final discharge ponds conforming to GPCB/CPCB norms	Month	Effluent Discharged	GPCB Permissible		
	shall be discharged into common effluent conveyance channel		in m3/Day(Ind. +Dom.)	Limit m3/D (Ind. +Dom.)		
	of VECL	Oct-23	8774	17251.9		
		Nov-23	9627	17251.9		
		Dec-23	9374	17251.9		
		Jan-24	8915	17251.9		
		Feb-24	7263	17251.9		
		Mar-24	6974	17251.9		

(11)	Continuous monitoring system for checking effluent quality/quantity shall be installed in the Unit.	Complied. Real time-Online Monitoring System is in operation from July 2014 for the effluent parameters i.e. pH, COD, BOD, TSS, NH4-N and it is connected to GPCB as well as CPCB server.  OMS data for compliance period Oct '23 to March '24:  ETP ETP					
			Ammoni	BOD	ETP	ETP	ETP pH
			cal	(Nor	COD	TSS	(Norms:
			Nitrogen	ms:	(Norms:	(Norms:	6.5-8.5
			(Norms:	100m	250mg/l)	100mg/l)	mg/l)
			50mg/l)	g/l)			
		Avg	13	26	131	32	7.6
		Min	6	15	76	15	7.4
(1.5)		Max	19	37	184	45	7.7
(12)	GSFC shall construct/ maintain 15 no. of rainwater harvesting structures (Recharge well and Furrat System) across the complex.	& Furrat s premise. TI	ystem) in pha he filtrations ra	ase wise mate is in the	anner in 2009 in the range of	9 & 2012 out 65-70 M3/ Hr.	
		Apart from this, GSFC has installed Roof top rainwater harvesting in GSFC's Corporate building, A block, ADC, R&D, Central Lab, SDO, Officer Punching & Mechanical Store building. @ 9985 m3 of rainwater is collected during monsoon of 2023-24 and re-used in process.					icer Punching &
		Rain Water Harvesting System exists at the Guest House, Science Foundation					nce Foundation
		Building and Township's residential areas with well water recharging, Roof To					rging, Roof Top
		Rain Water	r Harvesting a	nd Rain wa	ter harvesting	ponds. Ponds	have also been
		dug out to s	store the rain v	vater runoff	and percolate	the same.	
(13)	Effluent like washing wastewater & Cooling Tower/DMW Blowdown shall be reused in Phosphoric Acid Plant, Process Condensate & RO treated water shall be reused and recycled to other industrial units for cooling and boiler purposes. Industrial effluent shall be reused/recycles to maximum extent and rest shall be treated in ETP & further discharge to VECL Channel for final disposal at sea.	Complied. Effluent like washing wastewater & Cooling Tower/DMW Blowdown is being reused in Phosphoric Acid Plant. Process Condensate & RO treated water is being reused and recycled to other industrial units for cooling and boiler purposes. Industrial effluent is being reused/recycled to maximum extent and rest is being treated in ETP & further discharge to VECL Channel for final disposal at sea.					
(14)	Domestic sewage shall be treated in the existing Sewage Treatment Plant and treated water shall be reused for horticulture purpose.	existing S horticulture	ewage Treatr purpose.	nent Plant	and treated	water is be	s treated in the ing reused for
(15)	Dumping of waste (fly ash, slag, red mud, etc.) shall be permitted only at designated locations approved by SPCB/CPCB.	Noted. No	waste such as	s fly ash, sla	g, red mud, et	c. is generated	at GSFC.

(16) Spent oil, discarded containers etc. shall be sent to TSDF site/registered recycler. Authorization under Hazardous Waste Management Rules has been obtained from GPCB vide CCA Order No. AWH-117101 dated 15.02.2022 (valid till 30.09.2028). Hazardous wastes like chemical sludge from wastewater treatment plants, Spent Catalyst, Organic Waste, Spent Resin, Contaminated Cotton Rags, Carbon Residue, Molten Salt etc. shall be disposed off to TSDF/CHWIF Sites.

Used oil and discarded containers shall be sold to registered recycler. No hazardous waste shall be generated.

**Complied.** GSFC complies with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous Waste (Management, Handing and Transboundary Movement) Rules.

Authorization under HWMH Rules has been obtained for collection / treatment / storage / disposal of hazardous wastes from GPCB vide CCA order No.AWH-117101, valid up to 30/09/2028.

Details of Hazardous Waste generated from Vadodara Complex are given below:

S.no	Name of waste	Authorization from GPCB	Generated during period Oct '23 - March '24 in MT
1	ETP Sludge	40 MT/Year	Nil
2	Used Oil	250 MT/Year	48.82
3	Discarded Containers	10000 nos./Year	2666 Nos.
4	Spent Catalyst (Acidic)	35 MT/Year	31
5	Spent Catalyst ( Alkaline)	275 MT/Year	118.23
6	Organic Waste	20 MT/Year	7.54
7	Sulphur Muck	350 MT/Year	105
8	Carbon residue	7.7 MT/Year	6.64
9	Molten Salt	66 MT (in span of 07 years)	Nil
10	High Boiling Hydro Carbon	8.25 MT (in span of 07 years)	7.92
11	Spent Resin	80 MT/Year	7.08
12	Insulation waste	75 MT/year	75.6
13	Contaminated Cotton rags & other cleaning material	5 MT/Year	1.17

ETP Biological sludge of 8.0 MT was given to vendor for further utilization by organic manure manufacturer  $\!\!\!/$  farmers.

	However, 17 kg/day of silica generated from process of						
	LBCN Plant shall be reused as filler within the premises.	However, 17 kg/day of silica generated from the process of LBCN will be reused					
		as filler within the premises.					
(17)	Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.		Noted.				
	An amount of 21.58 Crores shall be allocated towards	Compli	ed.				
(18)	CER.	allocate Respon regardir	Rs. 21.58 Crore for acsibility for 2023-24" Sar	tivities to be taken under ne was informed earlier t in the EAC MOM vide le	to MoEFCC for corrections		
		For the	year 2023-24, GSFC ha	as spent Rs. 13.13 Crore	s towards CSR.		
	A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with fullfledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions by engaging SVP (OC (U&EC) – Sr. VP (I& MB, U&EC- Chief- Manager (Shift incharge)- Supervisiors- workman. In addition to this, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of		ed. GSFC has sepa ory facilities & qualified ing function. also has separate Safe ing of Safety Officers and of personnel working and for environmental definitions.	arate environment cell of personnel for environ ety department and Med and Medical officers respective EMC is given below. Hept. activities every yeto towards the engagement	and having full-fledged nment management and ical department incl OHC		
(19)	qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the	No.	Name of employees	Designation	Tech. Qualification		
	previous year.	1	K S Badlani	Sr. VP (I&MB,U&EC & FU)	B.E (Chemical)		
		2	P D Kachchhi	Chief (EC, IMB, TTWWP)& Dy.MR	B.E. (Env.), PDIS		
		3	Mrs.S Y Singh	Chief (EC, I&MB & IMS)	B.E. (Civil)		
		4	Prashant U Kadu	Sr. Mgr (EC)	B.E. (TEXTILE)		
		5	Jaxesh P Trivedi	Mgr (EC)	B.E (Chemical), M.Tech (EPD), PDIS		
		6	Ashok H Shah	Mgr(EC)	B. Sc (Chemistry)		
		7	Jayesh M Dave	Mgr(EC)	B. Sc (Chemistry)		

8	Prateek Jain	Dy.Mgr (EC).	B. Tech. (Chem.)
9	Pankaj K Sharma	Dy.Mgr (EC)	B.Tech. (Chem.)
10	Mosmi M Patel	Asst.Mgr (EC)	B.Tech. (RE & EE)
11	H V Shah	Plant Engr.	B. Sc (Chemistry)
12	Ambalal K Rana	Sr.Operator	B. Sc (Chemistry)
13	Anil L Arora	Sr.Operator	B. Sc (Chemistry)
14	Vipul R Upadhyay	Sr.Operator	B. Sc (Chemistry)
15	MM Parmar	Sr.Operator	SSC
16	Jayesh Solanki	Sr.Operator	Old SSC
17	Rajesh H Patel	Sr. Operator	B. Sc (Chemistry)
18	Kanubhai B Padhiyar	Sr. Operator	B. Sc (Chemistry)
19	Hitesh D Patel	Sr. Operator	M.Sc (Env. Sci.)
20	Pankaj C Patel	Sr. Operator	HSC Pass
21	MB Kharachia	Sr. Operator	SSC
22	AG Jethava	Sr. Operator	ITI
23	Rajesh K Desai	Foreman	B.SC Chemistry, DIPC, MS in Envt. Sci. under DLP
24	M R Chandlekar	Foreman	ITI
25	KN Chavda	Foreman	SSC
26	Bhavesh C Patel	Operator	M.Sc (Indus. Chem)
27	Biren R Patel	Jr. Operator	M.Sc. (Env), PDIS, Cert. (Dis.Mgmt)
28	Purvish S Shah	Jr. Operator	M.Sc. (Env), Cert. (Dis. Mgmt)
29	Jayesh S Patel	Attendant	Bsc. (Chem.)
30	Bhavdip S Vamja	Assistant Operator	B.Sc Chemistry
31	Gami Ravi kumar	Assistant Operator	B.Sc Chemistry
32	K K Mahida	Asst.Operator (OC)	Dip. (Chemical)

		* Total 12 nos. of contract workmen available.  Equipments are available for in-house effluent monitoring for parameters like PH,
		Total Dissolved Solids, Suspended solids, Ammonical Nitrogen, Total Nitrogen, Chemical Oxygen Demand, Fluoride, Oil and Grease. Equipments are available for in-house gaseous monitoring for parameters like SO2, NH3, F& NOX.
	The company shall comply with all the environmental	Complied.
	protection measures and safeguards proposed in the	•
	documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP Rs.394.1 Lakhs in the previous financial year for environment management and control and same shall be kept in a separate account and should	<b>ANTICIPATED IMPACT AND MITIGATION MEASURES:</b> Through detailed impact analysis, it is found that the impacts anticipated are of low significance and magnitude. Minor impact is anticipated during the construction & operation phase due to the proposed project. There will be no air emissions from the proposed LBCN project. However, small amounts of CO2 will be generated. There will be no wastewater generation from the project. It will be a ZLD project.
	be audited annually. The PP should submit the annual audited statement along with proof of implementation of	RISK ASSESSMENT: Detailed Risk Analysis was done, and the following
	activities proposed under EMP duly supported by	outcomes and recommendations were made, which will be ensured  Adequate ventilation should be provided in the work floor environment.
(20)	photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office	The work environment should be assessed.
	of MoEF&CC before 1st July of every year for the	All equipment and storage tanks/containers of chemicals should be bounded and earthed.
	activities carried out during the previous year.	Electrical resistance for earthing circuits should be maintained. Periodic inspections should be done for earth pit and record should be maintained. Limit quantity of material in storage up to 80 %.
		Restrict access to storage area.
		Post warning signs when appropriate.
		The budget under EMP of Rs. 394.1 Lakhs was proposed for AS-IV (Rs. 44 Lacs) and SA-V (Rs 350.1 Lacs) Projects out of which AS-IV plant has been completed and audited statement of amount incurred (Rs. 46.02 Lacs) under EMP for AS-IV plant is also available.
	The total water requirement shall not exceed 3.33 KLD. Out of which, 1.13 KLD freshwater shall be met by	Noted for LBCN Project.
(04)	existing freshwater sources. The rest of the requirements	GSFC is withdrawing water from its own French wells located in Mahi river for
(21)	shall be met by reusing 2.2 MTPD steam condensate within the project. 2.2 MTPD steam shall be used as a	operation of the plants. GSFC got permission for 30.99 MLD drawl of water from
	utility. Total water requirement after expansion shall be 44056.41 KLD. The PP shall ensure that water supply	Vadodara Irrigation Division (VID) for the year 2023-24 vide letter no. J.N.Versiv/PB-1/GSFC-Vadodara /Annual Qty. Reser./Year 2023-24/594 dated

	should not be above the permissible limit and fresh water shall be withdrawn only after obtaining requisite permission from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.	allowed on annual basis without any penalty. Avg. water drawl for the period October '23 to March '24 is 23.97 MLD for GSFC Vadodara complex.				
(22)	No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.	Complied. No bann the notifications/guid			the unit. GSFC follows l.	
	The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.	Minor amount of CO2 (682 kg/day) is proposed to be emitted from LBCN project. Substantial CO2 reduction from the complex is achieved through RE and				
			Basis	Total power	Carbon	
(00)		Wind power	1MT CO2 =	generation 171541119.8	reduction 140801.37	
(23)		(2023-24)	1218.32 KWh	kWh	MT of CO2 reduction	
		Solar Power (2023-24)	1MT CO2 = 1218.32 KWh	18702946.91 KWh	15351.42 MT of CO2 reduction.	
		Tree Plantation	40 trees reduce 1 T of CO2	Total 202633 nos. Of trees in GSFC.	5065.82 MT of CO2 reduction.	
(24)	The project proponent shall comply with the environment norms for Chemical Fertlizer Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules, 1986.	Complied, No efflue	ent generation and ç	gaseous emission fro	om LBCN plant.	
(25)	All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.	prescribed under the Import of Hazardou and the Chemical A Rules, 1996.	e rules and guideling s Chemicals (MSIH) ccidents (Emergend plan is in place for the	es issued in the Mar C) Rules, 1989, as a cy Planning, Prepare	followed in GSFC as nufacture, Storage and amended time to time edness and Response and mock drills carried	

(26)	The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.	Complied. No volatile organic compound (VOCs) will be used for the proposed LBCN project.  Necessary facility exists in the other existing plants of premises for controlling VOC.
(27)	The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.	<b>Complied.</b> As per condition no. 13 the water balance diagram for the complex shows the quantity of recycling and reusing of treated water.
(28)	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	Complied. Under the proposed LBCN Project, there will be no gaseous emissions from the project and hence no stack is proposed.  Apart from above, online monitoring system has been installed for effluent & emission for other manufacturing facilities of premise and connected to CPCB & GPCB.
(29)	The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.	<b>Complied</b> , only 2 m3 nitric acid will be stored in the day tank at LBCN plant.  The existing storage of toxic/hazardous raw materials for other plants in GSFC complex is available the period of Oct '23 to March '24.
(30)	The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers.	Complied. GSFC has a fully fledged 25 bed hospital with various facilities like central oxygen facilities (24x7), first aid boxes (125 no.). The hospital posses fully equipped indoor facilities like the following:  • Digital X-ray  • Full fledged Physiotherapy  • ECG multi parameter, defibrillator ventilator  • Fully equipped advanced laboratory  • Advanced Pharmacy  • ICU Beds, Sterilized Dressing Pad  • First responder facilities with splint, eye wash bottles, safety shower  • Emergency communication  Regular health check up (six monthly) of employees is carried out by Occupational Health Centre located within premises. Records are maintained at OHC. Month wise summery of employees who underwent periodical and pre medical examination and tests/investigations carried out during medical examination are given below.  Periodical Medical Examination details for compliance period Octl '23 to March. '24:

		Month	Periodical M	ledical Examinati	on numbers
			Employee	Contract	
			S	worker	Total
		Oct-23	189	0	189
		Nov-23	173	0	173
		Dec-23	260	0	260
		Jan-24	211	0	211
		Feb-24	201	30	231
		March-24	286	19	305
		Total	1320	49	1369
		Pre-Medical Examination detail Oct-23 Nov-23	S:	2	
		Dec-23		9	
		Jan-24		12	
		Feb-24		0	
		March-24		3	
		Total		33	
	All workers & employees shall be provided with required safety kits/mask for personal protection.	All workers & employees are protection.	provided necessa	ary safety kits/ma	ask for personal
(31)	Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment	and Medical Services department and workers are deputed for the same.  Safety training imparted to workers/employees (including Melamine-III			e same.  lamine-III plant)

		Month	Training Topic	Nos. of member s present
		Oct-23	Onsite and offsite emergency preparedness	51
			Transport Safety	32
		Nov-23	Chemical Safety & MSDS	78
		1100-23	Transport Safety	15
			Onsite and offsite emergency preparedness	74
		Dec - 23	Transport Safety	43
		Jan – 24	NIL	NIL
		Feb-24	Chlorine Safety	317
			Demonstration of BA Set and Other PPEs	27
			Mass TBT and PPE Demostration	1700
		March-24	Process Safety Management	43
			Legal requirement as per F.A.1948 & GFR-1963 & Safety in Boiler	63
(32)	possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.  The solvent management shall be carried out as follows:	available at Plan	eing maintained. Fire Extinguisher and Fire t site of LBCN.  Olvent is used for the proposed LBCN Project.	Fighting system
(33)	<ul> <li>(a) Reactor shall be connected to chilled brine condenser system.</li> <li>(b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.</li> <li>(c) Solvents shall be stored in a separate space specified with all safety measures.</li> <li>(d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.</li> <li>(e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.</li> <li>(f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.</li> </ul>	The said meas complex.	ures for solvent management are followed	Č
(34)	The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the	Corporate buildin Mechanical Store	C has installed Roof top rainwater harves ng, A block, ADC, R&D, Central Lab, SDO, Off be building. @ 9985 m3 of rainwater is collected e used in process	ficer Punching &

	unit.  No recharge shall be permitted within the premises.  Process effluent/ any wastewater shall not be allowed to mix with storm water.	No ground water recharge structure exist within the factory premise.  Necessary precaution is taken to ensure the process effluent/any wastewater does not get mixed by storm water.
(35)	The PP shall undertake waste minimization measures as below  (a) Metering and control of quantities of active ingredients to minimize waste;  (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage.  (d) Use of Close Feed system into batch reactors.  (e) Venting equipment through vapor recovery system.  (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.	Complied. All the measures are being followed for the existing complex.

В	STANDARD CONDITIONS		(	Compliand Period Oct '2		ı '24)		
(1.1)	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	proposal					erations in	the project
(1.2)	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.	Complied. All applied	cable rule	s and guidelir	es are stric	tly follow	ved.	
(1.3)		Complied. For 2023 replaced by latest LE					al lighting	fittings were
(1.4)	shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to	Complied. Noise mo (Max., Min along with norms. Noise Level for com	n compar	rison with star eriod Oct′23	ndards) are - March ′2	given <u>4</u> :	below and	d are in the
	(Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Location	<b>Noise</b> Avg	Level, Limit-7 Daytime Min	75 dB(A)  Max		e Level, L B(A) Night Min	
		Nr Marketing Yard	52	34	68	45	30	60
		Nr Adm. Building	52	34	70	49	32	64
		B/H SA-IV	48	32	66	46	32	60
		Vadnagar Tank Farm	45	30	60	42	28	54

(1.5)	The company shall undertake all relevant measures for	Compli	ed, it is ongoing	activity. Details are give	en below		
	improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco developmental measures including community welfare measures in the project area for the overall improvement of the environment.						
		Sr.		Details		Amount Rs.	
		1	Education			97587771	
		2	Drinking Water			1073725	
	area for the everal improvement of the crivillerinicity.	3	Other Local ac			5820	
(4.0)			·	Tot		67316	
(1.6)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein.	project c	ost for execution	of expansion project			
	The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.		·	ncurred over last 3 yea ent in pollution control:	rs are given below.		
			Description	Expenses in I	akhs		
				Till 2021-22	Till 2022-23	Till 2023-24	
			vestment in lution control	4198.58	4198.58	4198.58	
		Tota	al Investment	521036.12	528422.48	539630.49	
		Control	dept.	ry year for the expens	es to be carried ou	ut by Environment	
(1.7)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.	Complie	d, No suggestion	ns received.			
(1.8)	The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance	Compli	ed, Six monthly	compliance of the proje	cts is being done re	egularly.	

	status reports shall be posted on the website of the company.	
(1.9)	shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.	EC compliance status alongwith Form – V are put in website and regularly mailed to IRO.
(1.10)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	newspapers i.e. Indian Express & Sandesh newspapers on 09/01/2024.  The copy of same is forwarded by letter no- EC/ LBCN project/Adv./2024 on dated 11/01/2024 to IRO- MoEFCC Gandhinagar.  GUJARAT STATE FERTILIZERS & CHEMICALS LIMITED

(1.1		
	as well as the Ministry, the date of financial closure and final approval of the project by the concerned	
	authorities and the date of start of the project.	
(1.12		
	outcome of Hon'ble Supreme Court of India, Hon'ble	
	High Court, Hon'ble NGT and any other Court of Law, if	
	any, as may be applicable to this project.	

	ADDITIONAL EC CONDITIONS				nce Status '23 to March '24	)	
(1)	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	Complied as pe	r specifi	c condition 20			
(2)	Adequate air pollution control system and adequate stack height shall be installed in all the existing and proposed unit. Online Stack Monitoring System shall be installed in the plant for online air parameters measurement and connected to CPCB/GPCB.	Complied for ex	isting G	SFC plants. No s	tack proposed for	the LBCN project.	
(3)	Particulate and Flouride emissions shall be monitored regularly in the existing plant at GSFC and due to the adequate control systems in place of total fluoride remains well below the specified norms of 25 mg/Nm3.	monitored regular total fluorides results  Compliance	arly at G	SFC and due to ell below the spec DAP FUMES SCR. Train A	the adequate cor cified norm of 25 I DAP FUMES SCR. Train B	PA PLANT FUMES SCR.	
		Oct '23 to March '24  GPCB North	Avg. Min Max	F(mg/Nm3) 7.5 6.7 8.4 25	F(mg/Nm3) 8.0 7.6 8.3 25	F(mg/Nm3) 8.7 8.7 8.7 25	-
(4)	LDAR System with various gas detectors for Ammonia, Hydrocarbon and Chlorine, Sulphur Dioxide shall be installed in the plants. In case of leakage, same actuates and alarm appears in the control room. Such leakages are isolated and repaired. The fugitive emissions of the carcinogenic compounds (Benzene) shall be controlled by closed vapour collection and recovery system and monitored at regular intervals.	Complied. Vari installed in exist	ous gas ing plant uch leal	ts, In case of leak	kage, same actua	arbon and Chlorir tes and alarm appe Details of LDAR	ears in

(5)	Transportation of Ammonia and other hazardous	Complied. Transportation of raw materials/products and other hazardous chemicals
	chemicals shall be performed through GPS enabled	through GPS enabled vehicles are in practice in GSFC.
	vehicles and all the safety measures related to	
	hazardous chemicals shall be implemented.	
(6)	Total water requirement after expansion shall not	Complied for GSFC complex. For LBCN Project, water requirement will be
	exceed 44056.41 KLD. For the LBCN project, the total	complied.
	water requirement will be 3.33 KLD. Out of which, 1.13	'
	KLD freshwater will be supplied by existing freshwater	
	sources.	
(7)	PP shall comply with point wise action plan submitted	Complied. Detailed action plan with respect to mitigation measures for CPA
	in the EIA/EMP report to achieve compliance to the	mention in the Ministry's OM dated 31.10.2019 & 24.10.2019 is available.
	conditions stipulated in the OM dated 31.10.2019-	
	"Consideration of proposals for grant of Environmental	
	clearance for new and expansion activities listed in	
	'Red' and 'Orange' Categories located in Critically	
	Polluted Areas and Severely Polluted areas"	

# Monitoring the Implementation of Environmental Safeguards Ministry of Environment & Forests & Climate Change Regional Office (WZ) Gandhinagar Monitoring Report

### **DATA SHEET**

No.	Conditions	Compliance (Oct '23 to March '24)
1.	Project type: River-valley / Mining/	Industrial
	Industry/Thermal/Nuclear/Others(specify)	
2.	Name of the Project	Proposed addition for Manufacturing of Fortified Liquid Boronated Calcium Nitrate
		(LBCN) Plant with production capacity of 1100 KLPA (3.333 KLPD) in existing premises located at P.O. Fertilizernagar, Taluka & District- Vadodara, Gujarat
3.	Clearance letter(s) OM No. and date	J-11011/901/2007-IA-II(I) dated 28.12.2023
4.	Location	Gujarat State Fertilizers &Chemicals Ltd.
	a) District (s)	P.O. Fertilizernagar - 391750,
	b) State (s)	Vadodara
		Gujarat
	c) Location/Latitude/Longitude	Latitude: 22°22'33.73"N
		Longitude 73° 09'22.41"E
5.	Address for Correspondence	Mr. KS Badlani, Sr. Vice President (I&MB, U&EC & FU)
	a) Address of the Concerned Project Chief Engineer (with	P.O.: Fertilizernagar - 391750,
	Pin Code & Mob. No/Telephone/ Telex/ E-mail)	Tal. & District: Vadodara, State: Gujarat Mo. no.:9909965842;
	, ,	email: ksbadlani@gsfcltd.com
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	b) Address of concerned Project Engineer (with Pin code & Mob No / Telephone/ Telex/ E-mail)	Dr. Pujan Vaishnav, VP (R & D ) P.O.: Fertilizemagar - 391750, Tal. & District : Vadodara, State : Gujarat Email : pujan.vaishnav@gsfcltd.com
6.	Salient Features a) of the Project	Under Atma Nirbhar Bharat Programme, taking into consideration the increasing demand of Calcium Nitrate soon, the industry has proposed for "Manufacturing of Fortified/Liquid Boronated Calcium Nitrate (LBCN) Plant in existing GSFC Complex".
	b) of the Environmental Management Plans	Under proposed project, there will be no wastewater generation as water generated will get consumed in product. 0.6 KLD domestic sewage will be treated as per existing practices. No additional stack will be installed and no hazardous waste will be generated.
7.	Production details during compliance period and (or) during the previous financial year.	Project not started yet.
8.	Breakup of the Project Area a) Submergence area: Forest & Non-Forest	GSFC is located in notified area.
	b) Others	Project is located in existing premises.
9.	Breakup of the project affected population with enumeration of those Losing Houses/ Dwelling Units only, Agricultural Land only, Both Dwelling Units & Agricultural Land &I Landless Laborers/ Artisans:  a) SC, ST / Adivasi b) Others (Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures, if a survey is carried out and give details & year of survey)	None (Project is within existing Factory Complex area)
10	Financial Details:  a) Project Cost as originally revised estimates and the year of price reference.	Estimated project cost is Rs 50 Lac  Machineries will be commissioned in accordance with the plan at the existing machinery shed.
	b) Allocation made for environmental management plans	<b></b>

	with item wise and year wise break-up.	
	c) Benefit cost ratio/Internal rate of Return and the year of assessment (if applicable)	
	d) Whether (c) includes the cost of environmental management as shown in the above	
	e) Actual expenditure incurred on the Project so far.	
	f) Actual expenditure incurred on the environmental management plans so far.	
11	Forest Land Requirement     a) The status of approval for diversion of forest land for non-forestry use     b) The status of clearing felling.	Not applicable as project area is located within Factory Complex area.
	c) The status of compensatory afforestation, if any. d) Comments on the viability & sustainability Of	
	compensatory afforestation program In the light of actual field experience so far	
12	The Status of Clear Felling in non-forest Area (such as submergence area or Reservoir, approach roads), if any with Quantitative information required.	Not applicable as project area is located within Factory Complex area.
13	Status of Construction (actual and/orplanned)	Project is under commissioning stage.
	a) Date of commencement (Actual and/or planned)	
	b) Date of completion (Actual and/or planned)	
14	Reason for the delay if the project is yet to start	As per schedule.

15	Dates of Site Visits a) The dates on which the project was monitored by the Regional Office on previous occasions, if any	Dy. Director -MoEF, Bhopal visited GSFC complex on 23.06.2021.
	b) Date of site visits for this monitoring report.	IRO-Gandhinagar visited on 12.05.23.
16	Details of correspondence with project authorities for obtaining action plans/information on status of compliance to safeguards other than the routine letters for logistic support for site visit.	None
	(The first monitoring report may contain the details of all the letters issued so far but the later reports may cover only the letters issued subsequently)	

Current Status. : Consent to Establish (CTE) is received vide outward no. 21259 dated 26.12.2024. Erection is completed and project is under commissioning.