

a) The dates on which the project was monitored by the regional officer on previous occasions, if any.	:	13.02.91, 24.01.92, 14.09.92, 19.03.93, 20.02.95, 12.11.95, 05.08.96, 04.11.97, 24.02.99, 11.08.99, 06.03.2001, 17.03.2004, 17.09.2004, 17.06.2006, 28.07.2006, 30.08.2007, 10.08.2008, 11.08.2008
b) Date of site visits for this monitoring report.	:	NIL

**MOEF ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT [PHASE- I]**

(Period October '2008 - March '2009)

**Letter No.J-11011 / 8 / 87-IA DT.15.11.88**

01.	The Project Proponent must submit this Ministry a rapid Environmental Impact Assessment Report in Six-month and a comprehensive environmental impact assessment report within 18 months for scrutiny and approval.	Complied. Rapid EIA was submitted to MOEF, New Delhi vide our letter No.110627 dt.27.06.89. Comprehensive EIA was submitted to MOEF, New Delhi vide letter No.CFCL/GEN/VM/01A dt.15.11.90.
02.	The entire quantity of liquid effluents generated within the various process operations will have to be recycled either as a process water or for afforestation in the plant premises. If any liquid effluents are coming out of the plant premises it should strictly confirm to be standards prescribed by the Government or the Central/State Pollution Control Board.	Complied with. All efforts are made to recycle the liquid effluents either as process water or for afforestation in the plant premises. <b>99.1%</b> of the effluent is completely recycled back into the system or used in irrigation network. The quality & quantities of liquid effluents coming out of the plant premises are strictly conforming to the standards prescribed by RPCB vide Water Consent letters no. F.12(21-63) RPCB / G.I / 936 dt. 03.10.2008 (Ammonia and Urea Plant Phase-I) & F.12(21-63) RPCB / G.I / 924 dt.03.10.2008 (Steam and Power generation Plant).

03.	The emissions from various process units should conform to the standards prescribed by the Government or the Central / State Pollution Control Board. At no time the emission levels should go beyond the stipulated standards in the event of failure of any pollution control systems adopted by the units the respective units shall be put out of operation immediately and should not be restarted until the control systems are rectified to achieve the desired efficiency.	Complied with. Emissions from various process units are strictly conforming to the standards prescribed by RPCB vide Air Consent letters no. , F.12(21-63) RPCB / G-I / 939 dt. 03.10.2008 (Ammonia and Urea Plant Phase-I) & F.12(21-63) RPCB / G-I / 927 dt.03.10.2008 (Steam and Power generation Plant).
04.	The emissions from the Urea Prilling towers will conform to the standards prescribed for Urea dust.	Complied with. Prilling Tower is a natural draft type designed for Urea dust emission less than 50 mg/Nm <sup>3</sup> .
05.	The Project authorities should prepare a plan for implementation of disposal of solid wastes generated during various process operations or in the treatment plants provided. The Plan for disposal should be submitted to the competent authorities for scrutiny and approval.	Complied with. A proper plan for disposal of solid waste generated during various process operations is followed. The plan of disposal has already been submitted to MoEF earlier and has been checked and reviewed by MoEF personal during his visit at site. Authorization for operating a facility for collection & storage of Hazardous Waste under (Management & Handling) Amendment, Rules 2000 has been granted for 3 year (upto 31.03.2010).
06.	A minimum number of 5 air quality monitoring stations will be set up at different locations of the plant and in the nearby areas especially towards Sorsan and the air quality will be monitored as per the standard procedures on a weekly interval basis. All the stacks of the plant will be provided with continuous automatic stack monitoring equipment and stack emissions levels will be recorded and submitted to the State Pollution Control Board once in three months.	5 Ambient Air Quality Monitoring Stations are already functioning within the factory premises. Selection of Ambient Air locations for sampling was as per comprehensive EIA report and in consultation with R.O. Kota.  Ambient Air Quality Monitoring at all the five stations are being carried out as per the standard procedures on bi-weekly basis and data regularly submitted to RPCB.  Regular monitoring of each stack is being carried out and data are being submitted to RPCB on regular basis.  Most of the flue gas stacks for Boiler and Reformer etc. have been provided with continuous automatic analyzers for Oxygen, and Carbon mono-oxide. Condition for other parameters like, SO <sub>2</sub> , NO <sub>x</sub> and SPM is waived off as per MOEF letter no. J.11011/8/87-IA II dated 09.12.1999.
07.	The liquid effluent quality will be measured on a daily basis and records should be kept. Adequate number of water quality monitoring stations must be set up. If the effluent quality exceeds the standards prescribed at any time, the corresponding units of the Plant which are contributing to the excessive pollutant loads shall be stopped from operation till the quantity of pollutants discharged from those units are brought down to the required level.	Complied with. Effluent quality is being measured on daily basis and records are kept. Waste Water quality measurement is carried out at points like, Cooling Tower, DM Plant, Effluent Treatment Plant, Sewage Treatment Plants and Holding Pond outlet.  Effluent quality standards prescribed by RPCB/MINAS are being met.

08.	The Project authorities will establish the air and water quality monitoring stations immediately and start collecting the base line data of air and water quality in the region available at present, during the construction stage before start of the operation of the plant and continuous later when the plant goes on stream.	Air and water quality monitoring was carried out from Feb'89 to Jan '90 by Consultant M/s AIC Watson. Data was presented in Comprehensive EIA Report referred in Item-01 above.  Thereafter CFCL established their own laboratory and air and water quality monitoring was started from Feb'93. The Construction of the Project was over in Dec'93. Regular monitoring is carried out from the beginning and data is regularly submitted to RPCB and MOEF.
09.	The ground water quality of this particular area will be measured at a few locations near the plant site and later once in a month at the same months.	Ground water quality is being monitored at 08 locations around the plant site upto the radius of 10 kms and data are being submitted to RPCB on regular basis.
10.	A Disaster Management Plan duly approved by the nodal agency should be submitted before the commissioning of the Plant.	Complied with
11.	The cultivators who are likely to be affected due to the acquisition of their land shall be settled and rehabilitated as per norms laid down by this Ministry.	Complied with. Rehabilitation plan followed by CFCL was explained during the Inspection visit. Details were submitted vide CFCL's letter No.VM/01 dt.07.11.95 to the Ministry, (Copy of the same was enclosed with our letter No.102179 dt. 16.08.96). Details regarding the same were submitted vide our letter no. SMEQC / G-I / 01 / 378 dated 05.03.99 and vide our letter no.SMEQC / 01 / 626 dt 01.09.99 to MOEF Lucknow.
12.	Additional area under the control of the company, which is not being used for the plant utilities, may be afforested and funds for this purpose should be suitably provided.	Total land of CFCL is about 430 Hectare. Out of this 175 hectares has been covered under green belt / landscaping.
13.	A separate Environmental Management Cell with suitably qualified people to carry out various functions related to Environmental Management should be set up under the control of a senior technical personnel which will report direct to the head of the organization.	Complied with. A separate Environment Management cell is functioning well.
14.	Adequate financial provisions (capital and recurring expenditure) should be made for implementation of all the conditions stipulated herein and the finance so provided will not be diverted for any other purpose.	Complied with. A regular system of financial budget and adequate financial provisions are being made for capital and recurring expenditure for implementation of all the schemes.

**CHAMBAL FERTILIZERS AND CHEMICALS LIMITED, GADEPAN**

**MOEF ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT [PHASE- II]**

**(Period October'2008 – March '2009)**

**Letter No.J-11011 / 2 / 96-IA.II(I) DT.24.07.96**

01.	The project authorities must adhere to the stipulations made by the Rajasthan pollution Control Board and the State Govt.	:	All the conditions mentioned in the Consent to Operate letters no. F.12(21-63) RPCB / G-I / 930 dt. 03.10.2008, F.12(21-63) RPCB / G-I / 933 dt. 03.10.2008 (Ammonia and Urea Plant Phase-II) and Authorization letter no. F.16(32)/RPCB/HWMR/Kota/241 dated 17.04.07 are being complied with.
02.	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment & Forests.	:	Noted & being complied with.
03.	The particulate matter and gaseous emissions (SO <sub>2</sub> ,NO <sub>x</sub> ,NH <sub>3</sub> and HC) from various process/units should conform the standards prescribed by the concerned authorities, from time to time. Urea dust from the Prilling tower to be commissioned under the expansion proposal should not exceed 50 mg/Nm <sup>3</sup> or 0.5 kg/ tonne of product. At no time, the emission should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the respective unit would be immediately put out of operation and should not be restarted until the control measures are rectified to achieve the desired efficiency.	:	The particulate matter and gaseous emissions (SO <sub>2</sub> , NO <sub>x</sub> , NH <sub>3</sub> and CO) from various process/units conform the standards prescribed by the concerned authorities, from time to time. Urea dust from the Prilling tower is well below the prescribed limit of 50 mg/Nm <sup>3</sup> or 0.5 Kg/Ton of product. In the event of failure of any pollution control system, the respective unit is immediately put out of operation and is not restarted until the control measures are rectified to achieve the desired efficiency.

4.	<p>At least 5 ambient air quality monitoring stations should be set in the down wind direction, as well as where max. ground level concentration of NO<sub>x</sub>, NH<sub>3</sub> &amp; HC are anticipated in the consultation with the State Pollution Control Board.</p> <p>The air quality monitoring stations should be selected on the basis of mathematical modeling to represent short-term ground level concentrations, human settlement, sensitive targets etc.</p> <p>Portholes and sampling facilities should be provided for the stacks as per the Central Pollution Control Board Guidelines. Stack emissions should be monitored in consultation with the State Pollution Control Board.</p> <p>Data on ambient air quality and stack emissions should be submitted to this Ministry once in six months and the State Pollution Control Boards once in three months along with the statistical analysis and interpretation.</p>	<p>: 5 ambient air quality monitoring stations are already functioning within the factory premises. Selection of Ambient Air locations for sampling was as per comprehensive EIA report and in consultation with R.O. Kota.</p> <p>Portholes and sampling facilities have been provided for the stacks as per the Central Pollution Control Board Guidelines. Stack emissions are monitored in consultation with the State Pollution Control Board.</p> <p>Data of ambient air quality and Stack emissions submitted to state Pollution Control Board Quarterly.</p>
05.	<p>Storage of ammonia should not exceed the present level. One storage tank should be kept empty for emergency use.</p>	<p>: It is general practice to keep the quantity of liquid ammonia in the storage tanks at the minimum level. A minimum quantity of 500 MT is required for pumping. (Level for the month March 09 : Min.1824.99 MT &amp; Max. 2353.04 MT).</p>
06.	<p>Ammonia should be recycled to the extent possible in the ammonia plant before passing it through stack(s).</p>	<p>: Ammonia is recycled to the extent possible in the Ammonia/Urea plant for manufacturing Urea product and it does not pass through stack.</p>
07.	<p>Ammonia gas leakage from storage and loading points should be efficiently controlled or collected and scrubbed or may be sent to incinerator for flaring. Adequate precautions for handling ammonia vapors in case of emergency situation arising due to closure of the plant should be taken.</p>	<p>: Ammonia gas leakage from storage and loading points is efficiently controlled. It can be isolated immediately and fault can be attended. There is also a provision to incinerate through flaring. Adequate precautions have already been taken at the design stage itself for handling ammonia bearing vapors and non-ammonia bearing process gases which are sent to incinerator for flaring during emergency situation.</p>
08.	<p>Fugitive emissions should be controlled, regularly monitored and data recorded. Automatic monitors for ammonia should be provided at appropriate places in the plant.</p>	<p>: Immediate actions are taken to control fugitive emissions. Regular monitoring is carried out at various points and data are recorded. Automatic monitors for ammonia have been provided at appropriate places in the Urea and Ammonia plants.</p>
09.	<p>Low NO<sub>x</sub> burners should be used to limit NO<sub>x</sub> emissions to ensure compliance with the standards.</p>	<p>: Low NO<sub>x</sub> burners have been used to control NO<sub>x</sub> emissions to ensure compliance with the standards. This is always observed well below the specified limit.</p>

10.	Industry should provide separate outlets for storm wastewater and process effluents. Wastewater from the raw water treatment plant, DM Plant and the boiler blow down should not be allowed to mix up with the ammonia and urea plant effluents. Proper segregation of different effluents should be done.	: The separate outlets for storm wastewater and process effluents have been provided. Wastewater from the Water Pre-treatment plant is recycled back to the Raw Water reservoir and the Boiler blow down is used for Cooling Water makeup. Other wastewaters like Cooling towers blow down & backwash waste are sent to Holding Ponds. DM Plant waste is sent to ETP. These are not allowed to mix up with the Ammonia and Urea plant effluents. The effluent from Ammonia & Urea Plant is treated in the plant itself and sent to DM plant to reuse as Boiler feed water after polishing. Thus proper segregation of different effluents is being done.
11.	Oil-bearing wastewater should be treated for removal of oily matter before discharge and oil traps should be properly maintained.	: Oil bearing waste from running machineries get collected in separate pits in all the plants which is sent to the Oil separator at ETP where oil is recovered into the drums and effluent is transferred to ETP.
12.	<p>Final treatment effluent should conform to the following standard:</p> <p>pH - 6.5 – 8.0  Ammonical Nitrogen - 50 mg/l  Total Kjeldahl Nitrogen - 100 mg/l  Free Ammonical Nitrogen - 4 mg/l  Nitrate Nitrogen - 10 mg/l  Cynide as CN - 0.2 mg/l  Vanadium as V - 0.2 mg/l  Arsenic as As - 0.2 mg/l  Suspended Solids - 100 mg/l  Oil and Grease - 10 mg/l</p> <p>The wastewater should be recycled to the extent possible and efforts should be made to practice zero discharge from the fertilizer complex.</p>	: Treated effluent of Holding Pond achieves the standards as given.  All efforts are being made to recycle the wastewater to the maximum extent. 99.1 % wastewater is recycled back in the system or in irrigation during the period from April' 2008 to March' 2009.
13.	<p>Guard Pond(s) of sufficient holding capacity should be provided to cope up with the effluents discharged during the process disturbances. The contributing units should be immediately shut down and should not be restarted without brining the system back to normalcy.</p> <p>Structural stability of the Guard Pond with respect to leakage / cracks and other factors should be ensured. Monitoring of surrounding area ponds and ground water quality (wells) for relevant parameters should be carried out on a regular basis. Nitrate levels in the ground water particularly dug wells, borewells etc. should especially be monitored to detect NO3 contamination in the area.</p>	The Guard ponds have sufficient capacity of 10800 M3 to store wastewater of both the units. These ponds receive the wastewater from Ammonia and Urea Plants only during the time when the treatment in the plants does not meet the standards. Piezometer wells have been provided to monitor the ground water quality around Guard ponds and Holding Ponds and the ground water is being analysed to check its quality. Ground water quality is being monitored at 08 locations around the plant site upto the radius of 10 kms.

14.	Adequate number of influent and effluent quality monitoring stations should be set up in consultation with the State Pollution Control Board. Regular monitoring should be carried out for relevant parameters. Routine toxicity test of effluent with fish should also be regularly done. Monitored data along with statistical analysis and interpretation in the form of a report should be submitted to this Ministry once in six months and the State Pollution Control Board once in three months.	:	Analysis report of river Kalisindh before and after the confluence point of discharge is being done regularly. Treated effluent is discharged only during rainy days & rainy period. For the period from April'2008 to March'2009 samples were analysed and found to be well within the prescribed limits. Data is submitted to State pollution Control Board once in Three months.												
15.	The industry should provide a purge gas recovery unit for removing Ammonia, H <sub>2</sub> and CH <sub>4</sub> instead of burning in the Primary reformer.	:	Ammonia recovery unit for Purge gas is under operation. Due to commissioning of second line of GAIL from Vijaypur to Gadepan in Dec 2006 CFCL Phase-II plant is using RLNG as feed from 01.01.2007. Since, NG operation results in less CO <sub>2</sub> , the Purge gas recovery for H <sub>2</sub> & CH <sub>4</sub> is not possible.												
16.	The hazardous wastes should be handled as per the Hazardous Waste (Management & Handling) Rules, 1989 as amended in Oct, 1994.	:	The following are the hazardous wastes categories and quantity generated as per the Hazardous Waste (Management, Handling & Trans boundary movement) Rules, 2008. (during the period from April'2008 to March.'2009) <table border="1"> <thead> <tr> <th>Hazardous Waste</th> <th>Category No.</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>Spent Catalyst</td> <td>18.1</td> <td>NIL</td> </tr> <tr> <td>Used Oil</td> <td>5.1</td> <td>21.576 MT</td> </tr> <tr> <td>Discarded Container</td> <td>33.3</td> <td>0.720 MT</td> </tr> </tbody> </table> <p>The generated spent catalyst and waste oil will be sold out to the outside parties registered with the MOEF. Discarded containers are being send to CTDF. We are also submitting regularly the six monthly returns in Form no. VIII &amp; IX under the Batteries (Management &amp; Handling) Rules,2001 to Member Secretary, Jaipur.</p>	Hazardous Waste	Category No.	Quantity	Spent Catalyst	18.1	NIL	Used Oil	5.1	21.576 MT	Discarded Container	33.3	0.720 MT
Hazardous Waste	Category No.	Quantity													
Spent Catalyst	18.1	NIL													
Used Oil	5.1	21.576 MT													
Discarded Container	33.3	0.720 MT													
17.	Handling, manufacture, storage and transport of hazardous chemicals should be in accordance with the Manufacture, storage and Import of Hazardous chemicals Rules, 1989 as amended in Oct, 1994	:	Handling, manufacture, storage and transport of hazardous chemicals are in accordance with the Manufacture, storage and Import of Hazardous chemicals Rules, 1989 as amended in 2000. The separate Storage Tanks with all facilities for Naphtha, Liquid ammonia, Acids, Caustic Lye etc. have been provided.												
18.	Adequate measures for the control of noise should be taken so as to keep the noise levels below 85 dB in the work environment. Persons working near the noisy machines like ammonia plant, Urea Plant, TG, Compressor room, etc. should be provided with well designed ear muffs / plugs.	:	Adequate measures for the control of noise has been taken so as to keep the noise levels below 85 dB in the work environment. Persons working near the noisy machines like ammonia plant, Urea Plant, TG, Compressor room, etc. have been provided with well designed ear muffs / plugs.												
19.	Non-chromate system be used in all the Cooling towers, In case, zinc is also used with non-chromate dozing, its level in blow-down and sludge should be kept below prescribed standards.	:	Non-chromate with low Zinc inhibitor system has been used.												

20.	<p>Suitable alarm system and standards procedures for transmitting the information on the occurrence of an accident to the proper focal point should be established. Step should also be taken to ensure access to information on weather conditions prevailing at that time and weather forecast. Windssocks at appropriate locations should be provided.</p> <p>Graphs / monograms indicating spatial distribution of concentrations of toxic gas during day and night under different stability classes and wind conditions should be prepared and displayed at appropriate locations so as to help the designated emergency officer/team to organize rescue operations in case of accidental release of toxic gases / vapors.</p>	<p>Suitable Alarm System and Standard Procedures for transmitting the information on occurrence of an accident or emergency are already functioning. On site and Off- site DMPs have been prepared. Mock Drills are organized as per schedule. Windssocks at appropriate locations have been provided to indicate the wind direction. On line Wind Monitor has been installed in control Room to know about the Wind speed, Wind direction, Ambient Temperature etc. for better assessment.</p> <p>Risk analysis was carried out indicating spatial distribution of concentrations of Hazardous chemicals stored in the premises. A copy of the Risk Analysis report has already been submitted vide our letter no. SMEQC/01/09/217276 Dt. 09.01.2001. All information pertaining to weather is provided to rescue staff in case of accidental release of toxic gases/vapors.</p>
21.	<p>Efforts should be made to increase green belt all around the fertilizer complex and the township. Native plant species should only be selected for this purpose in consultation with the local DFO/Agriculture Department.+</p>	<p>: Efforts have been made to increase green belt all around the fertilizer complex and the township. Native plant species have been selected for this purpose in consultation with the local DFO/Agriculture departments.</p>
22.	<p>The project authorities should set up laboratory facilities for collection and analysis of samples under supervision of competent technical personnel who will directly report to the Chief Executive.</p>	<p>: The project authorities have set up laboratory facilities for collection and analysis of samples under supervision of competent technical personnel who directly reports to the Chief Executive.</p>
23.	<p>A separate Environmental Management cell with suitably qualified people to carry out various functions should be set up under the control of Senior Executive, who will report directly to the Head of the organization.</p>	<p>: A separate Environmental Management cell with suitably qualified people to carry out various functions has been set up under the control of Senior Executive, who reports directly to the Head of the organization.</p>
24.	<p>Periodic medical check-up of the workers should be done and records maintained.</p>	<p>: Periodic medical check-up of the working staff is being carried out and Medical Officer maintains the records. No trend has been observed so far for any occupational disease by the medical records.</p>
25.	<p>The funds earmarked for the environmental protection measures should not be diverted for other purpose and year-wise expenditure should be reported to this Ministry and to the state pollution Control Board under the rules prescribed for environmental audit.</p>	<p>: The funds earmarked for the environmental protection measures are not allowed to diverted for other purpose.</p>



## **CHANBAL FERTILISERS AND CHEMICALS LIMITED**

### **STATUS OF REVAMP PROJECT**

Stage-I scheme of the total revamp of Gadepan-I and Gadepan-II plants have been implemented in annual shutdown of 2009. Gadepan-I revamp plant was commissioned on 31.03.2009 and Gadepan-II plant on 28.04.2009.

**REVAMPING OF AMMONIA AND UREA PLANT AT GADEPAN, KOTA, RAJASTHAN BY  
M/S CHAMBALFERTILIZERS AND CHEMICALS LTD – ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT**

**(Period October 2008 – March 2009)**

2.0	The Ministry of Environment & Forests has examined the application. It is noted that CFCL have proposed for the revamping/expansion of existing capacity of Ammonia and Urea from 3,040 & 5240 to 3900 and 6,800 TPD (1423,500 & 24,82,000 MTPA) respectively at Gadepan, Kota, Rajasthan. Total land available is 800 ha and expansion will be carried out in 400 ha.	Noted
3.0	Low NOX burners will be installed to reduce NOx emissions. SO2 will be significantly reduced due to use of NG. To control the fugitive emissions/odor nuisance, ammonia and ammonical water will be routed through closed drains/pipes and discharged to atmosphere through vent stacks after scrubbing with condensate. Total water requirement from Kali Sindh river will be 41,760m <sup>3</sup> /d for which 'Permission' has been accorded by the Irrigation Department. All the treated effluent will be recycled and reused in the process or used for green belt development within the premises during non-rainy season. During rainy season, treated effluent will be discharged into Kali Sindh river only after meeting the norms as prescribed by the SPCB / CPCB. Sludge from ETP and STP generated as solid waste will be used as manure within CFCL premises. Used oil and spent catalyst will be sold to authorised recyclers/reprocessors.	Low NOX burners already installed in Aux-Boiler-3 & Primary Reformer-II. No new boiler has been installed in Revamp. However due to application of new technology KRES in Ammonia Plant-1 production has been enhanced without any additional fuel requirement in existing process, with this overall NOx emission per ton of production has been reduced. Other points are noted and being complied with.
4.0	Public hearing meeting was held on 13th April 2006. 'NOC' has been accorded by the Rajasthan State Pollution Control Board (RSPCB) vide letter no. F12 (21-63) RSCB/G.I./312 dated 31 <sup>st</sup> May, 2006. Air and water consents for the existing plant have also been accorded by the RSPCB which is valid upto 30.06.2006. Total cost of the project is Rs 685.60 Crores.	Air & Water consents, valid upto 30.06.2011; accorded by the RPCB Jaipur.

5.0	The Ministry of Environment and Forests hereby accords environmental clearance to the above unit under the EIA Notification, 1994 as amended subsequently subject to the compliance of the terms and conditions mentioned below:	Noted
<b>A</b>	<b>SPECIFIC CONDITIONS:</b>	
[i]	The gaseous emissions (SO <sub>2</sub> , NO <sub>x</sub> , NH <sub>3</sub> , Urea dust) particulate matter from various process units shall conform to the standards prescribed by the concerned authorities from time to time. NO <sub>x</sub> burners shall be installed in boiler and reformer to reduce NO <sub>x</sub> emissions and shall be monitored as per the CPCB guidelines. CO <sub>2</sub> recovery plant shall be installed to reduce CO <sub>2</sub> emissions in the environment. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.	<p>Low NO<sub>x</sub> burners already installed in Aux-Boiler-3 &amp; Primary Reformer-II.</p> <p>During the feasibility evaluation for the revamp projects option of CO<sub>2</sub> recovery plant was also evaluated and due to limited availability of proven technology and extensively high operating cost proposal has not been found viable.</p> <p>In view of this CFCL has selected the process technology wherein additional production is being achieved by no addition of reformer fuel and by this route effectively mass base CO<sub>2</sub> emissions are getting reduced as no additional furnace is being added into the system. The option of CO<sub>2</sub> recovery unit shall be further looked into once the proven and effective/ viable technology is available.</p>
[ii]	In urea plant, particulate emissions shall not exceed 50 mg/Nm <sup>3</sup> . Monitoring of prilling tower shall be carried out as per the CPCB guidelines. Hydrocarbon monitors shall also be installed.	Noted and being complied with.
[iii]	To control the fugitive emissions/odour nuisance ammonia and ammoniacal water from different pump ground leakages, vents, vessels etc. will be routed through closed drains/pipes and shall be connected to the vent stacks. Hydrolyser stripper and Ammonia stripper will be revamped during expansion and Ammonia will be discharged to atmosphere through vent stacks after scrubbing with condensate.	Noted and being complied with.

[iv]	Ambient air quality monitoring stations shall be set up in the downwind direction as well as where maximum ground level concentration are anticipated in consultation with the RSPCB and data submitted to the Ministry's Regional Office at Lucknow six monthly and RSPCB quarterly alongwith statistical analysis.	5 Ambient Air Quality Monitoring Stations are already functioning within the factory premises. Selection of Ambient Air locations for sampling is as per comprehensive EIA report and in consultation with R.O. Kota. Ambient Air Quality Monitoring at all the five stations are being carried out as per the standard procedures on bi-weekly basis and data regularly submitted to RPCB & MoEF's Regional Office at Lucknow.
[v]	Total water requirement after expansion shall not exceed 41,760 m <sup>3</sup> /d as per the permission accorded by the Irrigation Department, Govt. of Rajasthan. Efforts shall be made to reduce water consumption by adopting water conservation measures and recycling & reusing treated waste water in the process to reduce the fresh water consumption or for green belt development within the premises. No effluent shall be discharged outside the premises except during the rainy season into Kali Sindh river after meeting the norms prescribed under the E (P) Act, 1986 and RSPCB whichever are more stringent.	Noted and being complied with.
[vi]	Regular monitoring of ground water by installing pelzometric wells around the guard pond shall be periodically monitored and reports submitted to Ministry's Regional Office at Lucknow, CPCB and RSPCB.	Noted and being complied with existing plants
[vii]	Spent catalysts generated shall be properly stored in closed metallic drums before selling to authorized recyclers/reprocessors. Used oil and spent catalyst shall also be sold to authorised recyclers/reprocessors. Sludge from raw water treatment plant and STP sludge generated as sold waste shall be used as manure within CFCL premises.	Being complied with.
[viii]	The company shall undertake adequate protection measures for handling of ammonia vapours in case of plant upset conditions. Safety well exhaust and drains shall be connected to a separate close header from which ammonia vapours shall be vented from vent stack after diluting with stream.	Being complied with. The word "well" is not clear. MoEF may clarify the same. Probably it is Safety valve not Safety well

[ix]	The company shall implement all the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for fertilizer industries.	Being complied with.
[x]	The company shall develop rain water harvesting structures to harvest the run off water from the roof tops and by laying a separate storm water drainage system for recharge of ground water.	Water harvesting projects are already in progress.
[xi]	Green belt shall be developed in at least 33 % of total plant area excluding lawns etc. and properly maintained. An effort shall be made to further increase the percentage by regularly planting trees at all the vacant spaces to mitigate the effects of fugitive emissions all around the plant as per the Central Pollution Control Board guidelines. Density of trees at the site shall be maintained as 2,000-2,500 trees/ha.	<p>CFCL has already carried out extensive green belt development and information is being provided to MoEF through regular returns. As this revamp project dose not require any additional land and shall be constructed on the existing plant area CFCL is already complying with 33% green belt requirement.</p> <p>Regarding the plant density every plant species has their optimal spacing depending upon type of species, climate, usage, land and soil type.</p> <p>CFCL Green belt development has been based on the optimal spacing as per recommendation of literature, books and experts. For example In case of Kadam plant the spacing recommend is 3.00 x 3.00 mtr. Such spacing shall give maximum 1111 Nos. of plants per hectare. However, CFCL has an average density of 1200 plants per hectare</p> <p>In view of above, plant density of 2000-2500 per hectare is difficult to achieve.</p>
<b>B</b>	<b>GENERAL CONDITIONS:</b>	
[i]	The project authorities must strictly adhere to the stipulations made by the Rajasthan State Pollution Control Board (RSPCB) and the State Government.	Noted.
[ii]	No further expansion/modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Noted.
[iii]	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003.	Being complied with.
[iv]	The project proponent shall also comply with all the safeguards recommended in the EIA/EMP Report.	Being complied with.