



RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LTD.

(A GOVERNMENT OF RAJASTHAN UNDERTAKING)

Corporate Identity Number (CIN) - U40102RJ20005GCD16484

Regd. Office & H.O.: Vidyut Bhawan, Janpath, Jyoti Nagar, Jaipur-302005

KOTA SUPER THERMAL POWER STATION

Office of the Superintending Engineer (Commercial)

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No. RVUN/KSTPS/SE(Comml.)/ F.

/D.

104

Dated :

8/6/21

The Chief Engineer (PPMC&IT)
RVUN , Jaipur

Sub: Regarding Compliance of Environment Clearance (EC) conditions by
Kota thermal Power Plant.

In above cited subject, please find enclosed herewith the
Compliance of Environment Clearance (EC) conditions for the Month
ending May'21 in respect of Emission and Effluents from Kota Super
Thermal Power Station, Kota.

Encl: As above.

(Sangeeta Shringi)

Superintending Engineer (Comml.)
KSTPS, RVUN, Kota

Copy submitted for kind information.

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Superintending Engineer (Comml.)
KSTPS, RVUN, Kota

**STATUS OF THE ENVIRONMENTAL CONDITIONS IN THE APPROVAL OF KSTPS KOTA STAGE-I(2X110 MW)
BY PLANNING COMMISSION VIDE NO-1-26 (13)-1/73/P&E/ DT 21.9.76.**

| Condition | Compliance Status |
|--|---|
| The monitoring of the particulate emissions should be made available, so that the efficient functioning of the pollution abatement techniques can be judged. | Regular stack and ambient monitoring is being done as per Emission Regulation Part-III. |
| A regular watch on the discharge of water from the discharge channel into barrage water to be kept especially for the resultant rise in temperature & its effect on fisheries. | Being maintained regularly. The resultant rise in temperature is well within prescribed limit of 10° C. The temperature sensors to measure temperature at CCW inlet & CCW outlet has been installed. |
| if pollution levels are found to be unacceptable high, when the plant is in full operation, further pollution control may have be introduced at a later date. | Though the pollution level never remained unacceptably high. KSTPS has taken up various measures to increase efficiency of different equipment to bring down the level of pollution. e.g. installation of high efficiency ESPs, introduced extra fields in existing ESP, regular and stringent maintenance & up keeping of pollution control equipments for regularly monitoring of all parameters. |

**STATUS OF THE ENVIRONMENTAL CONDITIONS IN THE APPROVAL OF KSTPS KOTA STAGE-II(2X210 MW)
BY PLANNING COMMISSION VIDE NO-1-26 (13)-1/79/P&E/ DT 4.10.1980.**

| Condition | Compliance Status |
|---|---|
| The Feasibility reports was examined by the National Committee on Environmental Planning & Co-ordination Deptt. of Science & Technology, New Delhi & had cleared the scheme from the environment angle without any specific conditions. | Though no condition was imposed, still following actions were taken towards control of pollution:- ESP having 99.84% efficiency has been installed and working satisfactorily. |

**STATUS OF THE ENVIRONMENTAL CONDITIONS IN THE APPROVAL OF KSTPS KOTA STAGE-III (1X 210 MW)
BY PLANNING COMMISSION VIDE NO-1-26 (13)-1/89/(P&E)/ DT 24.2.1989**

| Condition | Compliance Status |
|--|---|
| <p>Liquid effluents from the Demineralization plant, boiler blow supernatant ash pond water, sewage etc. must be treated to comply with the standards prescribed by Central state Pollution Control Board of under the Environment (Protection) Act. 1986 whichever are most stringent.</p> | <p>All the liquid effluent from KSTPS is being monitored regularly and are being maintained within the prescribed standards. The sewage treatment plant is working satisfactorily in KSTPS Colony and complying with prescribed standards.</p> |
| <p>Adequate monitoring facilities should be provided for continuous monitoring of stack emissions and ambient air quality by providing at least 3 No air quality monitoring stations. Similarly, monitoring facilities for liquid effluents should also be provided at monitoring stations set-up.</p> | <p>At present Stage -I stack emission is being monitored once every month & stage-II &III stack emission twice in every month for each unit separately by third party. The ambient air quality is being monitored at 4 No stations installed within the plant premises according to mathematical modeling carried out during EIA study of Unit-7& at one station in KSTPS Colony on every alternate day as per the requirement of State Pollution Control Board vide their consent condition and Emission Part-III.</p> |
| <p>Adequate infrastructure facilities may be created for meeting the emergency situations arising due to fire hazards especially in the coal handling and oil storage areas.</p> | <p>As regards liquid effluent, all the trade effluent outlets of KSTPS Units are monitored weekly as per MINAS (Minimum National Standards) prescribed by Central Pollution Control Board.</p> <p>The monitoring facilities for liquid effluent are available at Power Station.</p> |
| <p>Green belt of adequate density and with must be created all around</p> | <p>Adequate system for fire fighting has already been provided in the plant to meet out any emergency situation in plant and especially for coal/oil storage areas.</p> |
| <p>An environment cell must be set up at the project for implementation and monitoring of the environment safeguards including green belt development.</p> | <p>With a view to improve the overall environment, a massive tree plantation/ green cover, covering more than 38 % of the total plant area of 246 hect. have already been covered by plantation as against requirement of 33 % area. Now there is no area left in the plant without plantation.</p> <p>An environment cell is working at KSTPS for compliance of environment conditions etc.</p> |

STATUS OF THE ENVIRONMENTAL CONDITIONS STIPULATED IN THE APPROVAL OF KSTPS KOTA
 STAGE-IV UNIT # 6 (1 X195 MW) BY MOE&F NO. J.13011/2/96 IAII(T) Dt 15.6.01

| Condition | Compliance Status |
|--|--|
| <p>For reducing the temperature differential between inlet & outfall points, the existing cooling water channel should be extended by another 200Mts. for more residual time. For this purpose, measures such as creation of artificial fall, aeration etc. should be considered. Arrangements should be made for continuous monitoring of temperature at outfall point.</p> | <p>Closed Circuit Cooling System with cooling tower has been installed.</p> |
| <p>The expansion Unit should be installed within the existing plant area of 230 ha. No additional acquisition of land would be permitted including for the ash disposal area.</p> | <p>No additional land was acquired for Unit #6 and ash dyke.</p> |
| <p>Washed coal should be used at the rate of 0.925 mtpa Sulphur contents the fuel should not exceed 0.3%.</p> | <p>KSTPS as a whole is using ,maximum of total allocated 1.316 mtpa washed coal meant for u#1 to 6</p> |
| <p>The existing ash pond covering an area of 411 ha should only be used for disposal of ash from 195MW expansion unit. Entire ash generated from KSTPS comprising of 2X110MW + 3 x210MW + 1X195MW to the of 14.01 lac MT per year should be fully utilized within 9 year from commissioning of Unit # 6 . To supplement collection of dry fly ash for use in the cement industries and nearby brick making units, therefore silos be installed as proposed besides the existing silo of 200 MT capacity.</p> | <p>The existing ash pond area is being used for disposal of ash from Unit # 6 of 195 MW. Full Fly Ash utilization of total ash generated is being achieved which includes wet ash utilized by the road construction companies, land filling etc. from the ash accumulated at ash dyke area. Intermediate Silo's near ESP's of all seven units i.e. Units # 1,2,3,4,5,6 & 7 has been commissioned & working. The dry fly ash is delivering through seven Nos. storage silo's, installed at the boundary wall of KSTPS</p> |
| <p>Afforestation should be undertaken in a phased manner for creation for 100 Mts. wide green belt along the plant periphery & about 20-30 Mts. within the plant, colony etc. A detailed plan for this purpose should be drawn indicating the financial requirements and submitted within three months. A norm of 1500-2000 trees per ha should be followed as per CPCB guidelines. A green belt should be created around coal handling unit and ash disposal area for reducing fugitive dust.</p> | <p>About 50 Mts wide green cover has been developed which at some Places are wider up to 300 Mts. So far we have planted about 3.50 lacs trees.</p> |

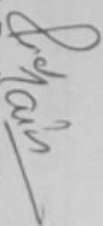
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|--|--|
| <p>Noise level should be limited to 75 dBA and regular maintenance of equipments be undertaken. For people working in the area of generator halls and other high noise areas, earplugs should be provided.</p> | <p>Complied. Ear plugs are provided to employees.</p> |
| <p>For controlling fugitive dust, regular sprinkling of water in coal handling and other vulnerable areas of the plant should be provided.</p> | <p>Adequate No of spray nozzles sprinklers provided at plough feeder, stock pile, conveyor belt waiting zone before unloading of wagons & tipplers. Also a High Pressure generating mist system has been installed and commissioned FROM Feb' 2012 for dust suppression for coal Handling plant in CHP at KSTPS.</p> |
| <p>Regular monitoring for SPM, SO₂ and NO_x around the power plant may be carried out and records maintained. Monitoring stations should be established in consultation with the State Pollution control Board.</p> | <p>Monitoring station has been established in consultation with RPCCB and monitoring records of SPM, SO₂ & NO_x is being maintained. 3 Nos continuous AAQM stations of THERMOFISHER make are installed and commissioned at KSTPS.</p> |

STATUS OF THE ENVIRONMENTAL CONDITIONS STIPULATED IN THE APPROVAL OF KSTPS KOTA STATION,
 UNIT # 7 (1 X 195 MW)
 BY MOE&F NO . J.13011/25/2005 IA II (T) Dt 07.02.2006

| Condition | Compliance Status |
|---|--|
| Stack of 180 mtr. with exit velocity of at least 25 m/Sec shall be provided with continuous online monitoring system | <ul style="list-style-type: none"> A codel make opacity meter has been installed for continuous online monitoring from stack of 180 mtr. height of Unit # 7. |
| Ash & sulphur contents in the coal shall not exceed 30 % and 0.5% respectively. | <ul style="list-style-type: none"> During the month of May'21 total ash content in coal utilized is in the range of around 37.2% with sulphur less than 0.5% |
| ESP with efficiency not less than 99.9% shall be installed to limit SPM upto 50 mg/Nm ³ | <ul style="list-style-type: none"> ESP with 4 additional field (total 32 fields) has been installed originally with efficiency more than 99.9% to limit the SPM less than 50 mg/Nm³. The stack monitoring results are regularly being submitted to RPCB, Jaipur. |
| 100 % Dry fly ash utilization right from the commissioning of the Unit. | <ul style="list-style-type: none"> A separate silo is installed for delivering fly ash to Cement Industries near boundary wall of KSTPS. Full Fly Ash utilization of ash generated is being achieved. |
| Closed Circuit Cooling System with cooling tower shall be provided. | <ul style="list-style-type: none"> Yes, Closed Circuit Cooling System with cooling tower has been installed. |
| Green belt development shall be developed covering 1/3 rd of the total area including ash pond area. | <ul style="list-style-type: none"> With a view to improve the overall environment, a massive tree plantation/ green cover, covering more than 38 % of the total plant area of 246 hect. have already been covered by plantation as against requirement of 33 % area. Now there is no area left in the plant without plantation. |
| Rain water harvesting should be adopted. Central Ground Water authority/Board shall be consulted for finalization of appropriate water harvesting technology within period of 3 month from the date of clearance. | <ul style="list-style-type: none"> Rain water harvesting system for unit-7 has been installed & commissioned according to Central Ground Water authority/Board. |
| Level of noise shall not exceed 75 db(A). For people working in the high noise area personal protection devices such as ear plug should be provided. | <ul style="list-style-type: none"> Complied , Ear plugs are provided to employees. |
| Regular monitoring of the air quality should be carried out in and around the power plant and record maintained. Six monthly monitoring reports should be submitted to the regional office of this Ministry at Lucknow. | <ul style="list-style-type: none"> 03 Nos Continuous AAQ Monitoring station has been established in consultation with RPCB and monitoring records of SPM, SO₂ & NO_x is being maintained. |

| | |
|--|---|
| <p>For controlling fugitive dust regular sprinkling of water in coal storage area and other vulnerable areas of the plant should be ensured.</p> | <p>Adequate No of spray nozzles sprinklers provided at plough feeder, stock pile, conveyor belt waiting zone before unloading of wagons & tippers. Also a High Pressure generating mist system has been installed and commissioned FROM Feb' 2012 for dust suppression for coal Handling plant in CHP at KSTPS.</p> |
| <p>A separate environment monitoring cell with suitable qualified staff shall be set up for implementation of stipulated environmental safeguards.</p> | <p>An environment cell is working at KSTPS for compliance of environment conditions etc.</p> |
| <p>Reports regarding Environmental conditions are to be submitted to CPCB/RPCB/ RO</p> | <p>Complied</p> |
| <p>Separate fund should be allocated for implementation of Environmental protection measures</p> | <p>Complied.</p> |


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 KSTPS, KOTA


Assistant Engineer (PE&E)
 KSTPS, KOTA