By speed post/online

F. No. IA- J-11011/51/2016- IA II(I)

Government of India

Ministry of Environment, Forest & Climate Change

Impact Assessment Division

Indira Paryavaran Bhawan, Vayu Wing, 3rd Floor, Aliganj, Jor Bagh Road, New Delhi-110 003 Dated:07th January, 2021

To,

Sh. Kumaresan,

M/s Coromandel International Limited Post Box. No: 1116, Sriharipuram, Malkapuram post, Visakhapatnam, Andhra Pradesh e-mail: rajasekhark@coromandel.murugappa.com

Sub: Enhancement of Phosphoric Acid production from 700 MTPD to 1000 MTPD P2O5 and other auxiliary facilities within the Existing Fertilizer Complex by M/s Coromandel International Limited located at Sriharipuram, Vishakhapatnam district, Andhra Pradesh - Amendment in Environment Clearance regarding.

Sir,

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This refers to your online proposal No. IA/AP/IND2/149474/2020 for amendment in the environmental clearance to the above project.

2. The Ministry of Environment, Forest and Climate Change has considered the above proposal for amendment in the environmental clearance granted by the Ministry vide letter dated 14.07.2017 for the project "Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P205 and other auxiliary facilities within the existing Fertilizer Complex" located at Sriharipuram, Vishakhapatnam district, Andhra Pradesh in favor of *M*/s Coromandel International Limited (Formerly *M*/s Coromandel Fertilizer Limited).

3. The project proponent has requested for amendment in the EC with the details are as under:

| Sr. | Para of | Details as per EC | To be revised | Justification/Reason |
|-----|---------------|---------------------|-----------------------------|---------------------------|
| No | EC issued | | /read as | |
| | by MoEF&CC | | | |
| 1. | Subject | Enhancement of | "Proposed | Change in total |
| | | Phosphoric Acid | setting up of new | sulphuric acid |
| | | production (from | 1500 MTPD | production capacity due |
| | | 700 MTPD to 1000 | Sulphuric acid | to Additional 1500 |
| | | MTPD) P205 and | (100%) plant | MTPD sulphuric acid |
| | | other auxiliary | within the | plant. |
| | | facilities within | Existing Fertilizer | Both Sulphuric Acid and |
| | | the existing | Complex, for total | Phosphoric Acid are |
| | | Fertilizer | Sulphuric acid | intermediates to |
| | | Complex, | production of | chemical fertilizers |
| | | Sriharipuram, | 3600 MTPD at | (Phosphotic fertilizers), |
| | | Vishakhapatnam | Sriharipuram, | which stand alone is not |
| | | District, Andhra | Vishakhapatnam | covered under the |
| | | Pradesh by M/s | district, Andhra | ambit of EIA notification |
| | | Coromandel | Pradesh, without | 2006 |
| | | International | increase | |
| | | Limited (Formerly | • | |
| | | M/s Coromandel | load and total | |
| | | Fertilizer Limited) | production of | |
| | | | NP/NPK (3900 | |
| | | | MTPD) and | |
| | | | Phosphoric Acid | |
| | | | (1400 MTPD) by | |
| | | | M/s. Coromandel | |
| | | | International | |
| | | | Limited (Formerly | |
| | | | M/s Coromandel | |
| | | | Fertilizers | |
| | | | limited)." | ~ |
| 2. | Point 2 | The Ministry of | | |
| | | Environment, | Environment, | |
| | | Forests and | Forests and | |
| | | Climate Change | - | |
| | | has examined the | has examined the | |
| | | application. It is | 1 1 1 | |
| | | noted that proposal | | |
| | | is for | is for <u>setting up of</u> | |
| _ | - | \checkmark | | |
| | Sr Sr | | | |
| | | | | |

| | <u>Phosphoric Acid</u> <u>production (from</u> <u>700 MTPD to 1000</u> <u>MTPD) P205 and</u> | (100%) plan within the Existing Fertilized Complex, for total | |
|------------|--|---|---|
| | <u>the</u> <u>existing</u> <u>Fertilizer</u> <u>Complex,</u> <u>Sriharipuram,</u> <u>Vishakhapatnam</u> <u>district, Andhra</u> <u>Pradesh by M/s</u> <u>Coromandel</u> <u>International</u> <u>Limited (Formerly</u> | <u>production of</u> <u>3600 MTPD at</u> <u>Sriharipuram,</u> <u>Vishakhapatnam</u> <u>district, Andhra</u> <u>Pradesh, without</u> <u>increase</u> <u>pollution</u> <u>load and total</u> | |
| | <u>M/s_Coromandel</u> <u>Fertilizer</u> <u>Limited).</u> | <u>NP/NPK (3900</u> <u>MTPD) and</u> <u>Phosphoric Acid</u> (1400 MTPD) by <u>M/s. Coromandel</u> <u>International</u> <u>Limited (Formerly</u> <u>M/s Coromandel</u> <u>Fertilizers</u> <u>limited)."</u> | |
| 3. Point 3 | Existing land area is Total plot area is <u>438 Acres</u> , of which 145 acres is developed as greenbelt. <u>Total</u> <u>cost of the</u> <u>project is ~ 225</u> <u>Crore.</u> The | Existing land area is <u>313 Acres</u> , of which 120 acres is developed as greenbelt. <u>Additional cost of</u> <u>the project is ~</u> <u>400 Crore.</u> The additional | and greenbelt area due to de-lease of 123 acres of land to M/s Visakhapatnam Port trust, including 25 acres of green belt. Proposed installation |
| | various environmental management programs in the proposed project is | estimated cost of various environmental management programs in the proposed project is v 10 Cr which is | of Sulphuric acid plant of 1500 MTPD capacity (standalone being exempted from EC as being inorganic product) |

Syn

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| around 12% of around 2.5% of proposed project proposed | |
|--|--|
| proposed project proposed | |
| | |
| cost. <u>In order to</u> Additional project | |
| <u>achieve</u> cost. <u>In order to</u> | |
| consented achieve | |
| production of consented | |
| <u>3900 MTPD</u> production of | |
| <u>NP/NPK 3900 MTPD</u> | |
| production, the <u>NP/NPK</u> | |
| facility intends to production, the | |
| adopt the facility intends to | |
| following adopt the | |
| modifications following | |
| and upgrades in modifications | |
| the upstream of and upgrades in | |
| the complex the upstream of | |
| fertilize the complex | |
| manufacturing fertilize | |
| units: manufacturing | |
| Enhancing <u>units:</u> | |
| Phosphoric acid Installation of | |
| plant production Additional 1500 | |
| capacity from 700 MTPD of | |
| MTPD to 1000 Sulphuric Acid | |
| MTPD including production | |
| evaporation plant along with | |
| section and existing 2100 | |
| fluorine recovery MTPD | |
| unit. Sulphuric Acid | |
| De-bottlenecking Plant (SAP-1 | |
| the existing (1700 MTPD) & | |
| sulphuric acid SAP2 (400 | |
| plant-1 from 1400 MTPD)). Total | |
| MTPD to 1700 production | |
| MTPD, capacity of | |
| De-bottlenecking Suphuric acid | |
| the existing shall be 3600 | |
| sulphuric acid plant MTPD | |
| -2 from 300MTPD | |
| | |
| to 400MTPD. sulphur coal in | |
| Instailing a coal fired boiler | |
| 40MTPH coal fired and optimizing | |
| boiler to meet the | |

4-

| | odditional -+ | | |
|---------|----------------------------------|--------------------------|--------------------------|
| | additional steam | | |
| | required for the | | |
| | increased | sulphuric acid | |
| | evaporation | plant – I and | |
| ł | capacity. | coal fired boiler | |
| | Installing a 5 | | |
| | MWback pressure | | |
| | turbine in order to | from the | |
| | maximize the | | |
| | efficiency of steam utilization. | emission load. | |
| ĺ | Installing of | • Existing | |
| | storage facility for | Dhoenharia | |
| | a capacity of | I coid plant with | |
| | 20000 MT (P20S | i production | |
| | solution) for | | |
| | phosphoric acid. | 1400 MTPD | |
| | Installation of 400 | | |
| ĺ | MTPD evaporation | | |
| | | Joinage | |
| | | | |
| | · · | | |
| | including fluorine | 12,500 MT | |
| | recovery system. | +1500 MT | |
| | Installing of | | |
| | storage facility for | | |
| | a capacity of 5000 | | |
| | MT for Sulphuric | 15,000 MT | |
| | Acid (100% | | |
| | strength) | | |
| . Point | | Power requirement | Due to installation of |
| | will be increased | will be increased | Sulphuric acid plant |
| | from <u>14 MW to 20</u> | from 20 MW to 21 | (production of sulphuric |
| | <u>MW</u> . The facility | <u>MW</u> . The facility | acid being inorganic is |
| | has contracted grid | has contracted grid | exempted from EC). |
| | power of 12 MVV, 5 | power of 12 MW, 5 | There shall be increase |
| | MW from APGPCL | MW from APGPCL | in 1MW of energy |
| | and in-house | and in-house | consumption. |
| | steam turbine | steam turbine | Due to installation of |
| | capacity of 5MW. | capacity of 5MW. | . |
| | The net available | The net available | Sulphuric acid plant |
| | power for the | power for the | there shall be 1800 |
| | existing operation | existing operation | m3/d water requirement |
| | is in the order of 22 | U 1 | and for production of |
| 1 | | | |

| | | | | enhanced phosphoric |
|----|------------|---|---|--|
| | | • | available power is | acid as per granted |
| | | adequate to meet | adequate to meet | consent there shall be |
| | | the total | the total | additional water |
| | | requirement of 20 | requirement of <u>21</u> | requirement of 2400 |
| | | <u>MW</u> post | <u>MW</u> post | m3/day. Thus Additional |
| | | enhancement. | enhancement. | 4200 m3/day of water |
| 5. | Point 4 | Fresh water | Fresh water | requirement shall be |
| | para 3 | requirement will be | requirement will be | sourced from GVMC. |
| | | increased from | increased from | |
| | | <u>8700 m3/day to</u> | 10350 m3/day to | |
| | | <u>12000 m3/day</u> , | 14550 m3/day, | |
| | | which will be | which will be | |
| | | sourced from | sourced from | |
| | | Greater | Greater | |
| | | Vishakhapatnam | Vishakhapatnam | |
| | | Municipal | Municipal | |
| | | Corporation | Corporation | |
| | | (GVMC).Sea water | | |
| | | consumption will | water consumption | |
| | | be increased from | will be same i.e | |
| | | 63000 m3/ day to | 84600 m3/ day. | |
| | | <u>84600 m3/ day</u> . | One on Dalt of 40 M | Change in greenhelt |
| 6. | A-Specific | Green Belt of 10 M | | Change in greenbelt |
| | Condition | wide (Perennial | wide (Perennial | area due to de-lease of |
| | 1 | trees) to be | trees) to be | 123 acres of land to M/s |
| | | developed in three | developed in three | |
| | | sides of plant | sides of plant | · • |
| | | periphery totaling | | of green belt. |
| | | 145-acre area | <u>120-acre area</u> . | Due to installation of |
| 7. | A-Specific | The present | | Due to installation of |
| | Condition | freshwater | freshwater | Sulphuric acid plant |
| | 2 | requirement is | · · | |
| | | <u>8700 m3/day.</u> | | |
| | | | | |
| | | Additional fresh | | |
| | | water for the | water for the | enhanced phosphoric |
| | - | water for the proposed | water for the proposed | enhanced phosphoric acid as per granted |
| | | water for the proposed enhancement is | water for the proposed enhancement will | enhanced phosphoric acid as per granted consent there shall be |
| | | water for the proposed enhancement is to be limited to | <u>water for the</u> <u>proposed</u> <u>enhancement will</u> <u>be 4200 m3/day.</u> | enhanced phosphoric acid as per granted consent there shall be additional water |
| | | water for the proposed enhancement is to be limited to 1650 m3/day. The | water for the proposed enhancement will be 4200 m3/day. The total | enhanced phosphoric acid as per granted consent there shall be additional water requirement of 2400 |
| | | water for the proposed enhancement is to be limited to 1650 m3/day. The total freshwater | <u>water for the</u> <u>proposed</u> <u>enhancement will</u> <u>be 4200 m3/day.</u> <u>The total</u> <u>freshwater</u> | enhanced phosphoric acid as per granted consent there shall be additional water requirement of 2400 m3/day. Thus Additional |
| | | water for the proposed enhancement is to be limited to 1650 m3/day. The | <u>water for the</u> <u>proposed</u> <u>enhancement will</u> <u>be 4200 m3/day.</u> <u>The total</u> <u>freshwater</u> | enhanced phosphoric acid as per granted consent there shall be additional water requirement of 2400 m3/day. Thus Additional |

| | 1 | | | · · · · · · · · · · · · · · · · · · · |
|----|------------|-------------------------|-------------------------|---------------------------------------|
| | | | <u>shall not exceed</u> | requirement shall be |
| | | | <u>14550 m3/day</u> . | sourced from GVMC. |
| | | The present sea | The present sea | |
| | | water requirement | water requirement | |
| | | for once through | for once through | |
| | | cooling is <u>63000</u> | cooling will remain | |
| | | <u>m3 / day and the</u> | to be <u>84600 m3 /</u> | |
| | | <u>same will be</u> | day. | |
| | | increased post | | |
| | | <u>enhancement to</u> | | |
| | | <u>84600 m3 / day</u> . | | |
| 8. | A-specific | Post | Post amendment, | Reduction of SO2 |
| | Condition | enhancement, the | the SO2 emissions | emission in sulphuric |
| | 4 | S02 emissions | from Sulphuric acid | acid plant -1 from 1 to |
| | | from Sulphuric acid | - | 0.75 kg/MT of acid |
| | | plant-l and | sulphuric acid | through addition of |
| | | sulphuric acid | | Caesium content |
| | | plant-2 shall be | maintained at 0.75 | catalysts in 5th bed of |
| | | maintained at I | | - |
| | | kg/MT and 0.65 kg/ | • • | |
| | | MT. | Sulphuric Acid | |
| | | | Plant-3 shall be | |
| | | | maintained at 0.75 | |
| | | | kg/MT. | |

4. The proposal was examined by the Expert Appraisal Committee (25th EAC-Industry-2) in the Ministry in its meeting held on 24th November, 2020 (F/Minutes). The EAC, after detailed deliberations recommended for amendment in EC as proposed by the project proponent with all other terms and conditions remain unchanged. Accordingly, amendment is mentioned under:

- (i) Subject shall be read as: "Proposed setting up of new 1500 MTPD Sulphuric acid (100%) plant within the Existing Fertilizer Complex, for total Sulphuric acid production of 3600 MTPD at Sriharipuram, Vishakhapatnam district, Andhra Pradesh, without increase pollution load and total production of NP/NPK (3900 MTPD) and Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited (Formerly M/s Coromandel Fertilizers limited)."
- (ii) Point 2 shall be read as "The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for <u>setting up of new 1500 MTPD Sulphuric acid (100%) plant within the</u> <u>Existing Fertilizer Complex, for total Sulphuric acid production of 3600</u>

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<u>MTPD at Sriharipuram, Vishakhapatnam district, Andhra Pradesh, without</u> <u>increase pollution load and total production of NP/NPK (3900 MTPD) and</u> <u>Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited</u> <u>(Formerly M/s Coromandel Fertilizers limited)."</u>

- (iii) Point 3 shall be read as "Existing land area is <u>313 Acres</u>, of which 120 acres is developed as greenbelt. <u>Additional cost of the project is ~ 400</u> <u>Crore.</u> The additional estimated cost of various environmental management programs in the proposed project is ~ 10 Cr which is around 2.5% of proposed Additional project cost. <u>In order to achieve consented production of 3900</u> <u>MTPD NP/NPK production, the facility intends to adopt the following modifications and upgrades in the upstream of the complex fertilize manufacturing units:</u>
 - Installation of Additional 1500 MTPD of Sulphuric Acid production plant along with existing 2100 MTPD Sulphuric Acid Plant (SAP-1 (1700 MTPD) & SAP2 (400 MTPD)). Total production capacity of Suphuric acid shall be 3600 MTPD
 - Use of low sulphur coal in coal fired boiler and optimizing operations of existing sulphuric acid plant I and coal fired boiler for no change in SO2 emission from the sanctioned emission load.
 - Existing Phosphoric acid plant with production capacity of 1400 MTPD
 - Provision of storage capacity of 2 x 5000 MT + 2 X 12,500 MT +1500 MT along with existing storage capacity of 15,000 MT'
- (iv) Point 4 shall be read as "Power requirement will be increased from <u>20 MW</u> <u>to 21 MW</u>. The facility has contracted grid power of 12 MW, 5 MW from APGPCL and in-house steam turbine capacity of 5MW. The net available power for the existing operation is in the order of 22 MW. Hence the available power is adequate to meet the total requirement of <u>21 MW</u> post enhancement."
- (v) Point 4 para 3 shall be read as "Fresh water requirement will be increased from 10350 m3/day to 14550 m3/day, which will be sourced from Greater Vishakhapatnam Municipal Corporation (GVMC). Sea water consumption will be same i.e 84600 m3/ day."
- (vi) A-Specific Condition 1 shall be read as "Green Belt of 10 M wide (Perennial trees) to be developed in three sides of plant periphery totaling <u>120-</u> <u>acre area</u>"
- (vii) A-Specific Condition 2 shall be read as "The present freshwater requirement is <u>10350 m3/day. Additional fresh water for the proposed</u> <u>enhancement will be 4200 m3/day. The total freshwater requirement post</u>

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enhancement shall not exceed 14550 m3/day. The present sea water requirement for once through cooling will remain to be 84600 m3 / day."

(viii) A-specific Condition 4 shall be read as "Post amendment, the SO2 emissions from Sulphuric acid plant-l and sulphuric acid plant-2 shall be maintained at 0.75 kg/MT and 0.65 kg/ MT and in Sulphuric Acid Plant-3 shall be maintained at 0.75 kg/MT."

5. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords approval to the proposed amendments in the environmental clearance dated 14th July, 2017 as stated above, for the project "Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P205 and other auxiliary facilities within the existing Fertilizer Complex" located at Sriharipuram, Vishakhapatnam district, Andhra Pradesh in favor of *M/s* Coromandel International Limited.

6. All other terms and conditions stipulated in the environmental clearance dated 14th July, 2017 shall remain unchanged.

7. This issues with approval of the competent authority.

101/01/01

(Ashok Kumar Pateshwary)

Director

Copy to: -

- 1. The Principal Secretary, Department of Environment, Forest, Science & Technology, Government of Andhra Pradesh, Hyderabad (Andhra Pradesh).
- The APCCF, Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), 1st & 2nd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai - 34
- 3. The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, CBDcum-Office Complex, East Arjun Nagar, Delhi - 32
- 4. The Member Secretary, Andhra Pradesh Pollution Control Board, Paryavaran Bhawan, A-III, Industrial Estate, Sanath Nagar, Hyderabad (AP)
- 5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor bagh Road, New Delhi
- 6. The District Collector, Visakhapatnam, Andhra Pradesh
- 7. Guard File/Monitoring File/ Parivesh Portal /Record File

(Ashok Kumar Pateshwary) Director Email: ak.pateshwary@gov.in Tele-fax: +91-11-24695290

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