



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

Present :

The following members were present:

1.	Prof. V.S.R.K.Prasad, Principal, ANITS, Sangivalasa, Bheemunipatnam, Visakhapatnam	Chairman
2.	Prof. Yechuri . Venkateswara Rao, Professor, Department of Botany College of Sciences and Technology, Andhra University, Visakhapatnam – 530003.	Member
3.	Prof. Prameela Rani Avula, Principal and Professor, Chairperson, Board of Studies in Pharmaceutical Science, University Collage of Pharmaceutical Science, Acharya Nagarjuna University.	Member
4.	Dr.M.Viswanadham, Director and Professor of Civil Engineering University Foreign Relations (UFR), JNT University Hyderabad, Kukatpally, Hyderabad	Member
5.	Shri P.V.Padmanabham, IFS (Retired.), Flat No.106, White House Aparts Road No.13, Banjara Hills, Hyderabad, Andhra Pradesh.	Member
6.	Mr.G.Balasubramanyam, Advisor Environmental Area Administrative Staff College of India, Bellavista, Raj Bhavan Road, Hyderabad	Member
7.	Prof. B.V.Sandeep, Department of Zoology, Andhra University, Visakhapatnam, Andhra Pradesh.	Member
8.	Dr.KVSG Murali Krishna, Department of Civil Engineering, University College of Engineering , JNT University, Kakinda, A.P.	Member
9.	Prof. B. Kondala Rao, Professor and Chairman, BOS, Marine Living Resources Department, Andhra University, Visakhapatnam, Andhra Pradesh.	Member
10.	Dr.Patruni Jagannadha Rao, Department of Chemical Engineering, A.U. College of Engineering, Andhra University, Visakhapatnam-3	Member
11.	Professor K.Kameswara Rao, Professor, Department of Environmental Sciences, Andhra University, Visakhapatnam	Member
12.	Shri Vissapragada. Veda Kumar, Flat No.403, MAC Enclave, Opposite Sarada Vidyalaya, O.M.Nagar, Langar House, Hyderabad – 500008.	Member



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

Agenda No.	Name of the Project	Recommendations of the SEAC
81.01	3.0 Ha Black Granite Quarry of M/s Sri Gayatri Granites, Survey No. 528, Sankepalli Village, Mudigubba Mandal, Ananthapuramu District, Andhra Pradesh. (Online)	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine.
81.02	3.0 Ha Colour Granite Mine of Smt. S. Shabana, Sy.No.B4-1 of Veerapuram (V), Gumagatta (M), Anantapur (Dist) Andhra Pradesh. (Online)	Issue of EC
81.03	1.416 Ha Black Granite Mine of SRS Granites, Sy.No:145, Peddannavaripalli Village, Talupula Mandal, Ananthapur District, Andhra Pradesh. (Online)	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine.
81.04	2.6 Ha Colour Granite Mine of M/s. Swetha Granites, Survey No. 16-2A, Yanadipalli Village, Kuppam Mandal, Chittoor District, Andhra Pradesh. (Online)	Issue of EC subject obtaining the information on surrounding mines within 500 meters of this mine form the Mining Dept.
81.05	1.0 Ha Black Granite Mine of Sri G. K. Devarajulu Naidu, Survey No. 680/3B & 681, Nellore Village, G.D. Nellore (M), Chittoor District, Andhra Pradesh.	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine.
81.06	1.0 Ha. Black Granite Mine of M/s. S.V. Granites, Sy. No. 44/1, Pasumanda (V), Gudipala Mandal, Chittoor District.	Issue of EC subject obtaining the information on surrounding mines within 500 meters of this mine form the Mining Dept.
81.07	3.0 Ha Colour Granite Quarry of M/s Sri Balaji Rocks, Sy. No: 32/3, Varathur Village, G.D Nellore Mandal, Chittoor District, Andhra Pradesh. (Online)	Issue of EC subject obtaining the information on surrounding mines within 500 meters of this mine form the Mining Dept. The committee also recommended that the proponent shall not use explosives in the mining operations as the village is located nearer to the mine.
81.08	2.00 Ha. Black Granite Mine of M/s. Kishore Granites, Sy. No. 121, Nellimanda (V), Somala (M), Chittoor District.	To issue EC.
81.09	4.00 Ha Black Granite Mine of Sri D. Sada Sivakumar Reddy, Sy. No: Gap Area, Kaveri Maharajapuram Village, Vedurukuppam Mandal, Chittoor District, Andhra Pradesh.	To issue EC.
81.10	0.676 Ha Black Granite Quarry of M/s VSS Granites, Sy No:1/14 of Rangasamudram Village, P.T.M.Mandal, Chittoor District. AP. (Online)	To issue EC.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

81.11	1.0 Ha Colour Granite Mine of Sri. Rathod Prem, Survey No. 487, Nellipudi Village, Gangavaram Mandal, East Godavari District, Andhra Pradesh. (Online)	To rejection of EC for not submitting the land documents.
81.12	1.643 Ha Barytes Mine of Sri Y. S. Venkata Reddy, Survey No. 1021/1, Vemula Village, Vemula Mandal, Kadapa District, Andhra Pradesh. (Online)	The committee recommended that the proponent shall represent the case by addressing issues of Hydrology, subsidence, ventilation, safety etc., concerns associated with the under ground mining.
81.13	4.615 Ha Colour Granite Quarry of M/s. C.T.P GRANITES & EXPORTS, Sy. No: 738/P, Vandadi Village, Chinna mandyam Mandal, Y.S.R Kadapa District, Andhra Pradesh. (Online)	To issue of EC.
81.14	7.152 Ha Colour Granite Quarry of M/s C.T.P GRANITES & EXPORTS, Sy. No: 738/P, Vandadi Village, Chinna mandyam Mandal, Y.S.R Kadapa District, Andhra Pradesh. (Online)	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine.
81.15	4.868 Ha White Shale, Dolomite & Lime Stone Mine of K.Chakrapani Reddy, Sy No: 641,642, 644,645, Kommamarri (V),Peapully (M),Kurnool (Dt),AP.. (Online)	The committee recommended that the proponent shall resubmit the application by deleting lime stone from the line of activity.
81.16	4.120 Ha. Steatite Mine of M/s. Nandini Mineral Industries, Sy. No.105, 105/1, 2 & 113/1A, Kolumulapalli (V), Bethamcherla (M), Kurnool District.	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine.
81.17	1.00 Ha. Colour Granite Mine of M/s. Seven Hills Stones, Sy.No. 24, S. Kondapuram (V), Adoni (M), Kurnool District.	To issue EC
81.18	4.441 Ha Lime Stone & Dolomite Mine of M. Harinatha Reddy, Sy No: 740/1A, 740/B & 740/2, Malkapuram (V), Dhone (M), Kurnool District, AP. (Online)	To issue standard TOR.
81.19	1.0 Ha Colour Granite Mine of M/s. Habiba Granites, Survey No. 124, Pesalabanda Village, Adoni Mandal, Kurnool District, Andhra Pradesh. (Online)	To issue EC.
81.20	4.524 Ha Dolomite Mine of Smt. D. Lakshmi Devi, Survey No. 489/A4, 495/A2,495/A3, 505/H, Malkapuram (V), Dhone (M), Kurnool District, Andhra Pradesh. (Online)	Issue of EC
81.21	3.827 Ha White Clay Mine of Sri V.V.S. Suresh, Survey No. 395/1A & 2, Kochcheruvu (V), Dhone (M), Kurnool	Issue of EC



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

	District, Andhra Pradesh. (Online)	
81.22	11.336 Ha Dolomite Mine of M/s. Lakshmi Narasimha Granite, Survey No. 702/Z, Dhone Village & Mandal, Kurnool District, Andhra Pradesh. (Online)	To reject EC as the project proponent operating the mine without obtaining EC.
81.23	5.526 Ha Silica Sand Mine of Smt. S.K. Heena Hameed, Survey No. 107/P, Karlapudi Village, Kota Mandal, Nellore District, Andhra Pradesh.	The committee recommended that the project proponent shall submit the revised application as per guidelines of SEAC/SEIAA for silica sand mines in Nellore District.
81.24	4.25 Ha. Quartz & Feldspar Mine of Sri. P. Kalyana Srinivas, Sy.No. 950/1B, Oduru Village, Chillakur Mandal, Nellore District, Andhra Pradesh. (Online)	To sought clarification on the registered documents.
81.25	3.838 Ha Black Granite Mine of M/s. Krishna Sai Exports Pvt. Ltd., Sy. No. 125/5(P), 6, 7, 8A, 9A & 130/1A, Gurijepalli Village, Santhamaguluru Mandal, Prakasam District, Andhra Pradesh. (Online)	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine.
81.26	1.214 Ha Black Granite Mine of M/s. Stonage Granites, Sy. No. 123/P, Gurijepalli Village, Santhamaguluru Mandal, Prakasam District, Andhra Pradesh. (Online)	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine.
81.27	4.428 Ha Dumping Waste in Non - Black Galaxy Granite Zone of M/s. Andhra Pradesh Granite (Midwest) Private Limited, Sy. No's: 941/1, 941/2, 941/3, 941/4, 944/1, 944/4, 944/5, 944/6 & 944/7, Chimakurthy Village & Mandal, Prakasam District. (Online)	To defer to the next meeting as the project proponent has not submitted the document of waste dump site.
81.28	0.607 Ha Colour Granite Mine of M/s. Krishna Sai Exports Pvt. Ltd., Sy. No. 103/P (USH- Veerlakonda), Konidena Village, Ballikurava Mandal, Prakasam District, Andhra Pradesh. (Online)	To reject EC as the project proponent has not submitted the compliance report of existing EC.
81.29	2.728 Ha Black Galaxy Granite Mine of M/s. Sree Venkata Sai Granites, Sy. No. 521, 522/1, 522/2, 522/3, 527/1A, 527/1B & 526, Chimakurthy Village & Mandal, Prakasam District, Andhra Pradesh. (Online)	To reject EC as the project proponent has not submitted the land documents of the mine.
81.30	9.0 Ha Colour Granite Mine of M/s. BAYROCK Granites, Survey No. 27, Meelasathiwada Village, Tekkali (M), Srikakulam District, Andhra Pradesh. (Online)	To reject EC as the project proponent operating the mine without obtaining EC.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

81.31	11.33 Ha Colour Granite Quarry of M.D Rizwan, Sy No:69 Avuruwada Village, V.Madugula M, Vishakapatnam District, AP. (Online)	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine.
81.32	120MW Blast Furnace Gas Based Captive Power Plant-2, Rashtriya Ispat Nigam Ltd, Visakhapatnam Steel Plant, Sy.No.273 to 277, Islampeta (V), Gajuwaka (M), Visakhapatnam District. (Online)	To recommend the request of the project proponent to withdraw their application as their proposed project is exempted (Captive Power Plant using waste heat recovery) as it is exempted under EIA Notification 2006.
81.33	4.0 Ha Colour Granite Mine of Sri K. Trimurthy, Survey No. 35, Thamaracherla Village, Ravikamatham (M), Visakhapatnam District, Andhra Pradesh. (Online)	Issue of EC.
81.34	1.66 Ha Colour Granite Quarry of Dr. Vijay Kumar Prodduturi, Survey No: 92/2 & 92/4, Kotnabilli Village, Ravikamatham Mandal, Visakhapatnam District, Andhra Pradesh. (Online)	Issue of EC
81.35	3.0 Ha Colour Granite Quarry of M/s. Cherukuru Granites, Survey No. 73, Thammannadoravalasa Village, Komarada Mandal, Vizianagaram District, Andhra Pradesh. (Online)	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine. Subjected to clarification from the mines department on inter state cluster issue.
81.36	4.466 Ha Colour Granite Mine of M/s Rajyog Minerals Pvt Ltd 4.466 Hect Colour Granite in Sy.No.133/2, Nellimarla (V&M), Vizianagaram District, Andhra Pradesh (Online)	Issue of EC by stipulating a condition that the project proponent shall not use explosives in mining operations as there is a village nearer to the mine.
81.37	Sri A Nagesh & Others, Sy.No. 41/2, Kapuluppada (V), Bheemili (M), Visakhapatnam District.	To issue EC.
81.38	28186 Sq. Mtrs. Construction of Residential Complex of M/s. Banjara Hospitalities (P) Ltd., Sy. No. 122 Part Maharanipeta ward Abutting Beach Road, Venkateswara Nagar, Centuary Club Road, Visakhapatnam District	To issue EC.
81.39	9.0 Ha. Colour Granite Mine of Smt. Vajja Munjula, Sy.No.24, Savarampuram (V), Nandigam (M), Srikakulam District	To issue EC



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

81.40	8.894 Ha, Colour Granite Mine of Sri.A.Prabhakaran, Sy.No.399, Peddatumbalam (V), Adoni (M), Kurnool District.	To issue EC subject that the Project Proponent shall submit an affidavit on a Non Judicial Stamp Paper with the undertaking on the following: i. Project Proponents shall abide with conditions which may be stipulated in future in respect of operation of cluster of mines by the MoEF & CC, Govt. of India / SEIAA, Andhra Pradesh. ii. To abide by any Rules, Regulations, Bye-laws and Court's Orders made there under from time to time in respect of operation of cluster of mines iii. Their operational methodology adopted for the implementation of conditions of Environmental Clearance will not be contrary to the existing statutes.
81.41	19.950 Ha. Colour Granite Mine of K.P. Navaneetha Krishnan, Sy.No. 399, Peddatumbalam (V), Adoni (M), Kurnool District.	To issue EC subject that the Project Proponent shall submit an affidavit on a Non Judicial Stamp Paper with the undertaking on the following: i. Project Proponents shall abide with conditions which may be stipulated in future in respect of operation of cluster of mines by the MoEF & CC, Govt. of India / SEIAA, Andhra Pradesh. ii. To abide by any Rules, Regulations, Bye-laws and Court's Orders made there under from time to time in respect of operation of cluster of mines iii. Their operational methodology adopted for the implementation of conditions of Environmental Clearance will not be contrary to the existing statutes.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

81.42	19.850 Ha. Colour Granite mine of Sri J.R. Madhan, Sy.No. 399, Peddatumbalam (V), Adoni (M), Kurnool District.	<p>To issue EC subject that the Project Proponent shall submit an affidavit on a Non Judicial Stamp Paper with the undertaking on the following:</p> <p>i. Project Proponents shall abide with conditions which may be stipulated in future in respect of operation of cluster of mines by the MoEF & CC, Govt. of India / SEIAA, Andhra Pradesh.</p> <p>ii. To abide by any Rules, Regulations, Bye-laws and Court's Orders made there under from time to time in respect of operation of cluster of mines</p> <p>iii. Their operational methodology adopted for the implementation of conditions of Environmental Clearance will not be contrary to the existing statutes.</p>
81.43	19.890 Ha. Colour Granite Mine of P. Periasamy, Sy.No. 399, Peddatumbalam (V), Adoni (M), Kurnool District.	<p>To issue EC subject that the Project Proponent shall submit an affidavit on a Non Judicial Stamp Paper with the undertaking on the following:</p> <p>i. Project Proponents shall abide with conditions which may be stipulated in future in respect of operation of cluster of mines by the MoEF & CC, Govt. of India / SEIAA, Andhra Pradesh.</p> <p>ii. To abide by any Rules, Regulations, Bye-laws and Court's Orders made there under from time to time in respect of operation of cluster of mines</p> <p>iii. Their operational methodology adopted for the implementation of conditions of Environmental Clearance will not be contrary to the existing statutes.</p>



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

81.44	19.0 Ha. Colour Granite Mine of Sri P.L.P Bala Subramaniam, Sy.No. 399, Peddatumbalam (V), Adoni (M), Kurnool District.	<p>To issue EC subject that the Project Proponent shall submit an affidavit on a Non Judicial Stamp Paper with the undertaking on the following:</p> <p>i. Project Proponents shall abide with conditions which may be stipulated in future in respect of operation of cluster of mines by the MoEF & CC, Govt. of India / SEIAA, Andhra Pradesh.</p> <p>ii. To abide by any Rules, Regulations, Bye-laws and Court's Orders made there under from time to time in respect of operation of cluster of mines</p> <p>iii. Their operational methodology adopted for the implementation of conditions of Environmental Clearance will not be contrary to the existing statutes.</p>
81.45	5.0 Ha Colour Granite Mine of M/s.Satya Krishna Granites, Sy.No.103(P), Konidena (V), Ballikurava (M), Prakasam District	<p>To issue EC subject that the Project Proponent shall submit an affidavit on a Non Judicial Stamp Paper with the undertaking on the following:</p> <p>i. Project Proponents shall abide with conditions which may be stipulated in future in respect of operation of cluster of mines by the MoEF & CC, Govt. of India / SEIAA, Andhra Pradesh.</p> <p>ii. To abide by any Rules, Regulations, Bye-laws and Court's Orders made there under from time to time in respect of operation of cluster of mines</p> <p>iii. Their operational methodology adopted for the implementation of conditions of Environmental Clearance will not be contrary to the existing statutes.</p>
81.46	13.001 Ha Black Galaxy Granite Mine of M/s.Ratna Natural Stones Private Limited, Sy.No.489/1 (P), Veluguvaripalem (V), Talluru (M), Prakasam District.	<p>To inform the Project Proponent to prepare the TOR as per earlier decision only.</p>



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

81.47	M/s. Steel Exchange India Limited, Malliveedu & Sreerampuram (Villages), L.Kota (M), Vizianagaram District	To sought clarification on material balance and pollution load.
81.48	5.658 Ha.Quartz Mine of M/s. Venkateswara Minelrals, Sy.No. 343, 344/1&2, Seetharampuram (V&M), Nellore District	To inform the Project Proponent to approach the SEIAA , after initiation of credible action.
81.49	1.142 Ha, Black Galaxy Granite Mine of M/s.Sudarsana Granites, Sy.No.53/P, Rajupalem-Lakshmipuram (V), Chimakurthy (M), Prakasam District	To issue EC subject that the Project Proponent shall submit an affidavit on a Non Judicial Stamp Paper with the undertaking on the following: i. Project Proponents shall abide with conditions which may be stipulated in future in respect of operation of cluster of mines by the MoEF & CC, Govt. of India / SEIAA, Andhra Pradesh. ii. To abide by any Rules, Regulations, Bye-laws and Court's Orders made there under from time to time in respect of operation of cluster of mines iii. Their operational methodology adopted for the implementation of conditions of Environmental Clearance will not be contrary to the existing statutes.
81.50	5.061 Ha Black Galaxy Granite Mine of M/s. B.V.L Exports Private Limited, Sy.No.98/4(P), 98/5(P), Budawada (V), Chimakurthy (M), Prakasam District	To defer to the next meeting for not submitting the land documents.
81.51	2.0 Ha. Black & Colour Granite Mine of Sri. P. Subramani, Sy.No.26, Rajanam (V), Kuppam (M), Chittoor District	To issue EC.
81.52	5.0 Ha. Black Granite Mine of M/s. Sukhavasi Bala Krishna, Sy.No. 51/P, Ummadivaram (V), Vinukonda (M), Guntur District	To inform the Project Proponent to approach the SEIAA , after initiation of credible action.
81.53	8.705 Ha. Silica Sand & Quartzite Mine of M/s. Raghavendra Mines & Minerals, Sy.No.550/C, Vorvakal (V & M), Kurnool District	To defer to the next meeting as the Project Proponent requested for postponement.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

Additional table agenda :

81.54	Amaravati- Andhra Pradesh Construction project of Revenue Villages in whole- 23; Villages in Part- 2 (List of Survey Nos. attached as Annexure - 1 in Form -I)
-------	--

The representatives of the project proponent and consultant made second round of presentation of the proposal in the SEAC meeting held on 26.09.2015. After detailed discussions the committee recommended the proposal for Environmental Clearance by stipulating following conditions:

The application submitted by AP Capital Region Authority and Capital Area Amaravati (AP CRDA & CA), Vijayawada, was considered in the 81st Meeting of the APSEAC held on September 26, 2015 at Visakhapatnam.

The Govt. of Andhra Pradesh has contemplated to create a new capital city by the name of **AMARAVATI**, and proposes to develop it as a *Green & Blue Field Capital City* in an area with an extent of 217.23 km², covering 25 villages in the Mandals of *Thulluru, Tadepalli* and *Mangalagiri*, of Guntur district. The entire development is envisaged in three phases (*Phase I*: up to 10 years; *Phase II*: 10 – 20 years; *Phase III*: 20 – 35 years) envisaging development of 39% of the land for a population of 0.85 million by the end of the Phase I; 18.4% additional land for a population of 0.9 million by the end of the Phase II; and 42.6% additional land for a total population of 2.4 millions by the end of the Phase III) is proposed.

The scope of the **Amaravati** capital area development project consists of: Built up spaces for *Capital, IT & ITES, Corporate, complexes; Financial, Start-up/Innovation* and *Educational* hubs; and *Civic; Health; Transportation; Sports and Recreational; Commercial* facilities, and Industrial, Residential and other community infrastructure facilities, including Express ways and Roads.

The project proponent represented by (1) Sri Sreenivasulu, Director, CRDA (2) Sri Sastry; and the EIA consultants represented by Mrs. Jyothi Prabha attended and after detailed discussions, the APSEAC recommended for the issue of **Environmental Clearance** (Conditions to be complied with for according Environment Clearance, as per the provisions of Environmental Impact Assessment Notification, 2006 and the subsequent amendments) and **recommends stipulation of the following conditions:**



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

WATER ENVIRONMENT

- 1) The Krishna River be protected from ALL TYPES of harmful discharges from all developmental activities before, during and after Capital Region Development.
- 2) The proponent shall utilize only surface water from Krishna River and Kondaveeti Vagu to the tune of 1067 MLD, after obtaining the approvals from the concerned statutory bodies and after proper treatment in the proposed Four Water Treatment Plants. Proponent shall ensure supply of water round the clock i.e, 24 x 7, meeting the drinking water quality standards IS 10500.
- 3) The proponent shall construct nine internal detention ponds and two reservoirs within the Capital City in addition to two external detention ponds of adequate capacity to over come the flood menace posed by the Kondaveeti Vagu and its tributaries. The proponent shall carry detailed hydrological study of the Kondaveeti Vagu and its tributaries and plan location of detention ponds and reservoirs to achieve twin objectives of combat of inundation and utilization of water. The proponent shall consider factor of increase in intensity of the flow and volume due to pavement of the City and area inundated for 1 hour or more and having water depth more than 6 inches may be considered as affected by water logging for designing of Storm Water Drainage System. The proponent shall consider climate change issues and design storm water drains for 20% more capacity than the calculated discharge. The proponent shall protect and improve the existing natural drains and construct modern storm water drainage system to avoid flooding and water lagging problems. Proponent shall ensure that sewage shall not enter into storm water drainage system under any circumstances. Proponent shall construct adequate detention ponds and reservoirs at appropriate locations to collect entire storm water. Proponent shall also take measures to strengthen the Krishna River Bund to minimize flood related issues.
- 4) Detailed studies on the flood management of the Storm water drains, mainly *Kondaveeti Vagu*, and its branches and a detailed plan to avoid inundation of the areas be developed taking in to account of the impact of the increased built up area in different development zones of the project.
- 5) The proponent shall ensure cleaning of storm water drains at least three times a year. (i) First, the process must start by 31 March each year and be completed one month before the normal arrival of monsoon each year. (ii) The drains should also be thoroughly cleaned after first heavy shower (iii) subsequently, after retreating of rain i.e, in the post monsoon.
- 6) Proponent shall ensure construction of rain water harvesting structures and also promote rain water storage and use system by considering heavy rains in the area. Proponent shall make these as mandatory by incorporating in the bylaws.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

- 7) Water pumping system and sewage conveyance and treatment systems are energy intensive as such the proponent shall follow Bureau of Energy Efficiency Norms.
- 8) Proponent shall encourage low flow plumbing efficient fixtures, sensors, auto valves, pressure reducing devices including for toilets, faucet aerators and shower heads to conserve the water. Proponent shall incorporate these guidelines in the bylaws.
- 9) The proponent shall ensure 100% collection of sewage by covering entire area of the city with modern under ground sewerage network. The proponent shall treat entire (100%) waste water of 877 MLD (year 2050) in the proposed Five Sewage Treatment Plants and one dedicated Industrial Waste Water Treatment Plant to the International Municipal Sewage reuse standards of BOD \leq 10 mg/l, COD \leq 10 mg/l, Total Suspended Solids (TSS) \leq 10 mg/l, Residual Chlorine \leq 1 mg/l and Faecal Coli / 100 ML – No detectable levels as committed in EIA report. The proponent shall recycle 100% of treated sewage for non potable applications like flushing, gardening, road and vehicle cleaning, HVAC, fire protection, construction activities, industrial applications by laying dedicated pipeline for supply of treated grey water as committed in the EIA report. The proponent shall construct treated sewage storage ponds of adequate capacity with HDPE liner to store treated sewage during rainy season as committed. The proponent shall lay dual piping at street level to facilitate supply of treated grey water. Dual piping at street level shall be laid out in service ducts with 24 x 7 water supply provision by ensuring pressure in the main water supply network is always maintained at least twice of the pressure in dual pipe carrying treated waste water to avoid contamination of the fresh water.
- 10) The proponent shall construct Sewage Treatment Plant of capacity 216 MLD in the 1st phase and reuse 114 MLD for green belt development and Horticulture and 102 MLD for flushing, construction activities, HVAC requirements, road washings, emergency fire fighting, industrial applications etc., as committed. The proponent shall also construct 3500 MLD treated sewage storage pond for storage of treated sewage in the rainy season as committed. The proponent shall undertake construction of Sewage Treatment Plant simultaneously with the construction of the city.
- 11) The proponent shall provide continuous online water quality monitoring facilities for WTPs, STPs and upstream of drinking water source at Krishna River. Results of monitoring shall be linked to SPCB / CPCB website.
- 12) All roads should have rain water drains connected separately (from the sewage network) to the treatment facility of the zone.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

- 13) Appropriate sites be identified and selected for establishing the STPs for different zones, and the proponent shall reserve the area within 200 m from the STPs, as no habitation vegetation zone and may use for establishing waste recycling or processing or handling facilities for the respective zone.
- 14) Water quality of the all the surface water bodies, including the storm water drains be monitored during pre-monsoon and post-monsoon seasons, for their management purposes, and the report is submitted as compliance.
- 15) The proponent shall prepare water foot print and carry auditing every year.

AIR ENVIRONMENT

- 16) The proponent shall give priority for walking, cycling and integrated public transport system for laying of the roads , and usage of cleaner fuels and flying of fuel efficient vehicles on the road.
- 17) Proponent shall construct a continuous unobstructed foot path on each side of all streets with ROW wider than 12 mtrs. Minimum width of footpath shall be 2 mtrs. in addition to space for trees/greenery / vending spaces and surface utilities. Width of footpath shall be determined based on pedestrian volume and have to be wider than 2m wherever required. Intermittent buffers, bollards and other physical elements should be used to protect foot paths from encroachment by motor vehicle parking. At least 125 trees per kilometer for footpath on the streets shall be ensured. Spacing of trees at no place should be grater than 12 m except at intersections. On streets with ROW of 18 m or less, if pedestrian traffic is greater that 8000 per hour in both directions together, the entire ROW should be notified for pedestrianization. Footpath Elevation over the carriage way at all times should be less than 150 mm. All pedestrian facilities should be barrier free for universal access by all persons with reduced mobility including those with hearing and visual impairments. At least 5 safe street-level crossing opportunities per kilometer of street with 250m being maximum spacing between two crossings. Depending on context, these crossings may be signalized and / or traffic clamed (through raising crosswalk over street level by 150mm) to reduce vehicular speed. Limiting speed on urban arterial roads and sub-arterial streets to 50 kmph and on collector and local streets to 30 kmph. Traffic calming of all streets with ROW of 12m or less through narrowing of driveway and meandering path with use of trees, islands and street furniture and speed should be limited to 20 km/hr by design. Highways within urban areas should be avoided since they disrupt pedestrian activity and disconnect neighborhoods. Vending spaces should be marked in addition and adjacent to the walking path, especially along high pedestrian volume areas to activate the street and make it safe. Space to be



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

planned for utilities including drinking water kiosks and toilets so that the walking space is enhanced but not compromised.

- 18) Proponent shall construct dedicated and physically segregated bicycle tracks with width of 2m or more, one in each direction on all streets with total motor vehicle carriageway larger than 10 m (not ROW) after providing adequately sized footpaths in each direction based on pedestrian traffic. At least 5 safe street crossing per km for bicycles with spacing between two crossings not more than 250m. Provide secure parking for cycles at transit stations, all public places and commercial and institutional buildings. Promote and implement public sharing schemes.
- 19) Proponent shall design street with emphasize on Pedestrian and cyclist safety, comfort and convenience. Proponent shall establish a dedicated unit for planning and auditing of Non Motorized Transport (NMT) facility. Area of blocks surrounded by public access pedestrian / cyclist streets or pathways shall not exceed 2 ha. No development shall be permitted until local street grid is put in the place which subdivides land into blocks of no more than 2 Ha.
- 20) Proponent shall develop high quality and high frequency rapid public transport system with dedicated lines for bus rapid transit system. All public facilities (institutional / educational / cultural etc) should be accessible by public transport within 400m walking distance.
- 21) The proponent shall encourage battery operated vehicle by providing separate lane with a provision for recharging.
- 22) On making available of cleaner fuels like LPG/ CNG, the proponent shall ensure plying of only CNG /LPG fueled public transport vehicles like buses, taxies, autos on the road. Proponent shall also ensure that vehicle beyond 15 years age shall not ply in the city. Proponent shall also encourage usage of low sulphur diesel and unleaded petrol by vehicles. Proponent shall ensure plying of latest emission compliant vehicles only on road.
- 23) The proponent shall encourage environmental friendly modes of transport like public transport and non motorized transport and discourage usage of personal cars by devising disincentives for private car use both spatial (like parking control) and physical (like levies on car, fuels, congestion charges).
- 24) The Proponent shall provide adequate parking facilities by giving priority to public vehicles and non motorized transport vehicles.
- 25) The Proponent shall ensure that DG sets shall comply with noise and emission norms prescribed by MoEF & CC in Environment (Protection) Rules.
- 26) The proponent shall ensure development and meeting of not less than 10% of energy needs from the renewable energy sources like Solar, Wind, WTE, Bio mass etc. The proponent shall develop 120 MW solar power with investment of



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

Rs. 500 Crores and wind power with investment of Rs.100 Crores in the 1st phase as committed.

- 27) The proponent shall ensure installation of solar panels by all buildings by allocating at least 1/3 of roof top for this purpose. This is in addition to installation of solar heaters. Proponent shall incorporate these things in bylaws.
- 28) The proponent shall incorporate energy efficiency guidelines (Energy Conservation Building Code) and Green Building Concepts (GRIHA/IGBC/LEED) in the bylaws. Buildings shall utilize natural lighting and ventilation to the maximum extent. All point like sources shall be CFL or LEDs or equivalent. All linear light sources shall be T-5 or at least 4* BEE rated TFLs or equivalent. The distributed cooling system shall be at least BEE 3* rated products. All the major buildings having connected load of more than 100 KW shall maintain power factor of above 0.95. All multi story residential apartments / complexes shall meet at least 15% of total external lighting load through renewable energy sources and all commercial, institutional, industrial and mixed use buildings shall meet at least 5% of the total lighting loads through the renewal energy source. All residential buildings having plot area of more than 500 Sq. mtrs., multi store residential apartments / complexes, hotels and banquet halls, hospitals, all government buildings, residential schools, educational institutes, hostels and industries requiring hot water shall install solar water heating systems to meet at least 20% of hot water requirement. 24 hours use buildings like hospitals, hotels, call centers, shall ensure that thermal performance of external walls and roof shall conform to ECBC 2007 requirements i.e., maximum U-factor (W/m^2K) of 0.44 and 0.261 respectively and for day time use buildings U-factor of 0.44 and 0.409 respectively. U-factor for windows shall not be more than 3.30. All major buildings and complexes shall meet Energy Performance Index of less than 150 kWh/Sq.m per year. All commercial building with connected load of 100 KVA and above shall invariably comply with energy conservation building code. All the Capital complexes, Commercial, institutional and major residential complexes should be constructed following **Green Building** concepts and ensure energy efficiency, low carbon foot-print, resources conservation etc. The Proponent shall ensure that all the bulk consumers of the energy, shall meet a greater part of their demand through renewable energies and avoid less use of fossil fuels; The proponent shall incorporate these in bye laws.
- 29) The proponent shall establish minimum 3 online continuous Ambient Air Quality Stations in three zones i.e, residential, commercial and business zones and connect the results to CPCB / SPCB website in the 1st phase. Permanent Online Air Monitoring Stations for Air Quality be established, one for every 25 km² of



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

area, located strategically considering the wind rose of the area and terrain conditions

- 30) The project proponent should develop mechanism for monitoring Carbon sequestration from the plantations made and should achieve a Mean Annual Increment of the Carbon stock of at least 5 tons/ha/annum. The proponent should monitor the carbon stock of each area, at least once in two years and submit reports.
- 31) The proponent shall prepare carbon footprint for the city and strive for carbon neutrality.

SOLID WASTE MANAGEMENT

- 32) The proponent shall ensure that all utility line (Electricity, Telephone, Cable, water supply, sewerage, drainage etc.) shall be laid below the ground. Duct shall be provided along and across the roads to lay the utility lines. Major truck (water / sewerage) lines are to be laid along the utility corridor.
- 33) The proponent shall ensure that occupiers of all premises to keep two receptacles, one for the storage of food / organic / biodegradable waste and another for non biodegradable / recyclable and other types of solid waste generated. Hazardous waste generated by house holds shall be kept separately in suitable container as and when such a waste is generated.
- 34) The project proponent shall ensure that all the *newly developed areas* shall not have any open waste disposal sites on the roadsides and develop efficient waste collection mechanism that ensures segregation at the origin level only.
- 35) Proponent shall arrange for door to door collection and / or community bin collection of domestic, trade and institutional waste stored by the waste generators in segregated manner.
- 36) Proponent shall identify and allocate suitable pieces land in the jurisdiction of the city to facilitate sorting of various components of recyclable material collected by waste collectors and prevent such activities being carried out on the foot paths / road side etc.
- 37) The proponent shall identify and allocate adequate land for Multiple Transfer Stations with mechanical Material Recovery Facility for secondary segregation and storage of dry waste as committed. Transfer Stations shall be properly covered and hygienically maintained to minimize Environmental and Health Hazards.
- 38) Proponent shall ensure daily sweeping of all public streets and periodical cleaning of all public places.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

- 39) Proponent shall make arrangements for separate collection of construction and demolition waste and transferred to Construction and Demolition Waste Recycling Facility. Proponent shall allocate adequate and suitable land for establishment of Construction and Demolition Waste Recycling Facilities.
- 40) The proponent shall ensure that a separate adequate space for segregation / storage and decentralized processing of solid waste is demarcated in the plan for group housing or commercial / institutional or any non residential complex exceeding 200 dwelling or having a plot area of more than 10000 Sq. mtrs.
- 41) The proponent shall ensure collection of waste from vegetable, fruit, meat and fish markets on daily basis and promote setting up of de-centralized compost plant or bio methanisation plant at suitable location in the market.
- 42) The proponent shall ensure establishment of modern abattoirs (slaughter houses) with appropriate waste management facilities. The proponent shall also take measures for establishment of Rendering Plant for disposal of carcass or parts of any dead animal in scientific manner.
- 43) The proponent shall allocate suitable and adequate site for setting up of Common Bio Medical Waste Treatment and Disposal Facility within the city limits.
- 44) Proponent shall make arrangement for setting up of Waste Collection Centers for plastic waste in association with plastic manufacturers. The Proponent shall also ensure safe collection, storage, segregation and transportation, processing and disposal of plastic waste in environmentally sound manner. The proponent shall allocate suitable and adequate site for setting up of plastic recycling, processing and disposal facilities.
- 45) The proponent shall facilitate setting up of E-waste Collection Centers by the producers and channelize e-waste to recyclers or dismantlers. The proponent shall allocate suitable and adequate site for setting up of e-waste recycling / dismantling facilities.
- 46) The proponent shall identify and allocate suitable site for establishment of Common Hazardous Waste Treatment and Disposal Facility.
- 47) The proponent shall facilitate establishment of used battery Collection Centers by manufactures / importers / assemblers / reconditioners and channelize the used batteries to register recyclers. Proponent shall allocate suitable site for setting up of used battery recycling facilities.
- 48) Proponent shall ensure proper collection and scientific disposal of sludge from the water treatment plants, sewage treatment plants, water seal latrines and septic tanks.
- 49) Proponent shall take measures for proper collection and scientific disposal of bulky waste like discarded tables, chairs, cots, cub boards, mattress, gas cookers, microwave ovens, washing machines etc.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

- 50) Proponent shall take measures for establishment of state of art modern Integrated Solid Waste Management Facility for the city as committed consisting of Sorting / Material Recovery Plant, Compost Plant / Anaerobic Digesters, Waste to Energy Plant, Construction and Demolition Waste Recycling Plant, Bio medical Waste Facility, Plastic Waste Processing and Recycling Facility and Engineered Landfill Facility. Proponent shall allocate suitable and adequate space for ISWMF in the city limits and ensure establishment of ISWMF simultaneously with the construction of the city in the first phase.
- 51) The proponent shall maintain adequate green buffer around Integrated Solid Waste Management Facility and Common Hazardous Waste Treatment and Disposal Facility by carrying proper assessment, but not less than 100 mtrs.
- 52) The proponent shall ensure usage of fly ash for leveling / reclamation of low lying areas, road embankments , for raising platform in inundated areas , and usage of fly ash based products for construction purpose including fly ash bricks, fly ash based bricks, PPC cement etc., in compliance with Fly Ash Notification issued by the MoEF under Environment (Protection) Act. The proponent shall incorporate usage of fly ash by construction agencies in the bylaws.

ECOLOGY

- 53) A list of all existing water bodies (including ponds, tanks, drains, irrigating channels) falling in the proposed area, shall be prepared village wise with survey no., extent, use and other details duly certified by a competent authority and a certified map of these water bodies as on project commencement date should be kept as base map with the AP CRDA & CA, and should be displayed on its web site;
- 54) All construction activities by the proponent should ensure that the activities do not alter or do not adversely affect the water bodies and their ecology;
- 55) No water body shall be lined or no embankment shall be cemented. The water bodies shall be kept in natural conditions without disturbing the ecological habitat.
- 56) Improvement or rehabilitation of existing natural streams, channels / nallas shall be carried out without disturbing the ecological habitat.
- 57) No untreated or treated wastewater shall be discharge in the any water bodies including Krishna River under any circumstances.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

- 58) The proponent shall create primary green spaces of 7200 Ha. consisting of city parks, lake parks, town parks, neighborhood parks as committed. The proponent shall create primary green space of 3924.57 Ha in the 1st phase as committed.
- 59) The proponent shall create and maintain secondary green space of 1910 ha. weave through the townships connecting the various town and neighborhood parks acting as a passive recreation places, interactive jogging trails and Non Motorized Transport corridors across the city. The proponent shall create secondary green space of 510.04 ha in the 1st phase as committed.
- 60) The proponent shall protect and conserve the existing water bodies of 4815 ha. in addition to creating new water bodies integrated with green spaces as committed.
- 61) A buffer of 30m on either side of canals and streams; 50m around water bodies and 100m along the Krishna River Front shall be reserved as greenbelt without allowing any development. Plantation along the side of the roads and in the open spaces shall be developed to act as sinks of air pollutants.
- 62) The proponent shall encourage urban agriculture to meet the city food requirements and reserve high value agriculture land wherever possible for this purpose as committed. A belt of 2 to 3 Km. of broad running parallel to Krishna river rich in bio diversity shall be used for blue green infrastructure development only as committee
- 63) The proponent shall utilize natural features such as forest and hills to create regional green network as committee.
- 64) The proponent shall utilize reserve forest land of 251.814 Acres , after de-notification for development of green belt / eco friendly activities only .
- 65) The proponent shall utilize treated sewage water for irrigation of primary and secondary green areas by laying pipeline network.
- 66) All archaeological, cultural and ecologically-sensitive areas (i.e. estuaries, mangroves, rocky shores, caves etc.) in and around the Amaravati capital city be 100% protected and conserved. The proponent shall take appropriate measures for protection of Undavalli caves. The proponent has to declare no development activity of 100 to 300 mtrs. around Undavalli caves as per ASI regulations.
- 67) A comprehensive PRIMARY BASELINE DATA on the productivity of the Krishna River in the CRDA area (primary, secondary and tertiary productions), before and after Capital region development, are essential be collected and processed in a systematic and scientific way.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

- 68) Development of the green belts, green corridors, avenue plantations etc., be made only with the native species with multiple uses, and the plantation should not affect the native species diversity and help enhance carbon stocks.
- 69) The proponent shall reserve most of the waterfront along the Krishna River for public use as committed.
- 70) The proponent shall create 780 ha recreational landscapes including theme Parks, Golf Courts, Sports and Recreational Spaces.
- 71) Proponent shall create green and blue network interconnecting all reservoirs, water bodies and green spines.
- 72) The proponent shall create network of water ways as committed to connect various eco tourism attraction on the cluster of islands on the river Krishna. These water ways have to inter connect Island and mainland within the city.
- 73) A major part of the development of the water bodies and green areas be completed before the end of the construction phase;
- 74) All construction activities by the proponent should ensure that the activities do not adversely affect the water bodies and their ecology;
- 75) No natural water body shall be lined or no embankment shall be cemented except for protection and safety of the people in the surrounding area. The water bodies shall be kept in natural conditions without disturbing the ecological habitat.
- 76) Improvement or rehabilitation of existing natural streams, channels / nallas shall be carried out without disturbing the ecological habitat.
- 77) Mitigation measures like providing adequate drainage, embankment consolidation and slope stabilization shall be taken on the built up areas and along the city roads to avoid soil erosion. Top soils (30 cm) of the borrow pit sites shall be conserved and restored after completion of excavation. All the topsoil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site. Proper erosion control and sediment control measures shall be adopted.
- 78) Recognizing the fact that the project being proposed on the ***Green & Blue Field Capital*** policy, and also to protect the environment, the 24.29% of the land allocation for greening and open spaces, be achieved at the Development zone wise as far as possible.
- 79) Development of the green belts, green corridors, avenue plantations etc., be made only with the native species with multiple uses, and the plantation should not affect the native species diversity and help enhance carbon stocks.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

- 80) Deep rooted large foliage Plantation along the side of the roads and in the open spaces shall be developed to act as sinks of air pollutants.
- 81) All the Capital complexes, Commercial, institutional and major residential complexes should be constructed following **Green Building** concepts and ensure energy efficiency, low carbon foot-print, resources conservation etc.
- 82) The proponent shall develop a peripheral area development plan and provide plans for the compensation of the loss of rural productivity like loss of grazing areas for the livestock dependent communities; vegetable growing farmers and sellers etc.

RESETTLEMENT AND REHABILITATION

- 83) The AP CRDA & CA shall submit the specific plans for the inclusion of the existing habitations in the capital area development and submit the details of the Project Affected Families and the RR Plans to address the PAFs. As far as possible, **Least Dislocation Principle** be adopted;
- 84) The proponent shall develop a peripheral area development plan and provide plans for the compensation of the loss of rural productivity like loss of grazing areas for the livestock dependent communities; vegetable growing farmers and sellers etc.

DISASTROUS MANAGEMENT

- 85) The proponent shall prepare and implement proper flood management plan to overcome threats posed by the Kondaveeti Vagu, Krishna River and heavy rains (more than 100 mm).
- 86) The proponent shall prepare earth quake response management plan by considering the location of the city in the class III seismic zone. The proponent shall incorporate structural design requirements of buildings for Seismic Zone – III in the bylaws.
- 87) The proponent shall create adequate infrastructure for emergency fire fighting.
- 88) Proponent shall prepare emergency Health Management Plan.

ENVIRONMENT MANAGEMENT DURING CONSTRUCTION PHASE

- 89) The Proponent shall ensure safe and secure accommodation, clean drinking water, hygienic sanitation facilities like mobile toilets, community level gas supply, rest



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

areas for female workers, nutrition development programme for workers at all construction sites for the projected work force of 5000 -10000 spread in about 40 labour camps as committed in EIA report.

90) The Proponent shall ensure following mitigate measures as committee to minimize pollution problems during construction stage.

- All the loose material either stacked or transported shall be provided with suitable covering such as tarpaulins etc.
- Water sprinkling shall be done at the location where dust generation is anticipated.
- Construction equipment be maintained and serviced regularly such that the gaseous emissions from these equipments are maintained within the design specifications.
- Provision for insulating caps and aids at the exit of noise source on the machinery.
- The use of damping materials such as thin rubber / lead sheet for wrapping the work places like compressors, generator, etc.
- Inlet and outlet mufflers shall be provided, which are easy to design.
- Earmuffs will be provided to workers and enforced to be used by the workers.
- Noise prone activities shall be restricted to the extent possible during the night time, in order to have minimum environmental impact on the workers as well as on the neighbourhood.

91) Groundwater should not be used for any activities during the construction phase; and a policy for the use of ground waters by different users in the project area be developed for their sustainable use and submitted.

ENVIRONMENT MANAGEMENT MONITORING SYSTEM

92) The responsibility of implementation of environmental safeguards rests fully on the project proponent. Project proponent shall establish an **Environmental Management Regulatory Authority** to carryout functions relating to environmental management under the supervision of a senior executive, directly reporting to the Project Proponent. The Cell should have separate wings for (a) Greenery and Ecological Management; (b) Sewage Management; (c) Solid Waste Management; (d) Fly Ash Utilisation and (e) Pollution Control, staffed by Scientists/Engineers and supported by established laboratories and adequate supporting staff.



MINUTES OF THE 81st MEETING OF STATE EXPERT APPRISAL COMMITTEE (SEAC).A.P. HELD ON 26.09.2015 AT A.P. POLLUTION CONTROL BOARD, ZONAL OFFICE, BESIDE RTA OFFICE, MADHAVADHARA, VUDA LAYOUT, VISAKHAPATNAM

*Any change(s) in the scope of the project, shall require a fresh appraisal by the SEIAA. As the details of the **Inter Linked Projects** for the Government Complexes, Housing Complexes, Cultural Centres, Industrial / IT Park, Commercial Complexes, Education Institutions etc. have not been submitted with respect to built-up area, excavation, water consumption, sewage generation, solid wastes generation, power requirement, pollution control arrangements, environmental safeguards, construction material etc. for construction and operation phases, therefore, the respective project proponents shall obtain separate Environmental Clearances for all the projects which falls under the schedule of Environment Impact Assessment Notification, 2006 from State Level Environmental Impact Assessment Authority, as per provisions of Environment Impact Assessment Notification 2006.*

O.D
Member Secretary, Andhra Pradesh
Pollution Control Board,
Member-Secretary,SEAC,A.P.

Sd/-
Prof. V.S.R.K.Prasad,
Chairman, SEAC, A.P.