

## Government of Maharashtra

SEAC-2011/CR-857/TC-2  
Environment department  
Room No. 217, 2<sup>nd</sup> floor,  
Mantralaya Annex,  
Mumbai- 400 032.  
Dated: 1<sup>th</sup> April, 2015

To,  
M/s. SPAK Surfactants Pvt. Ltd.  
Plot No. G-2 , MIDC Lote Parshuram,  
Tehsil Khed, Dist: Ratnagiri.

**Subject: Environment Clearance for Proposed expansion of synthetic organic chemical manufacturing facility at Plot No.G-2, MIDC, Lote Parshuram, Tal. Khed, Ratnagiri by M/s. Spak Surfactants Pvt.Ltd**

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification, 2006, by the State Level Expert Appraisal Committee-I, Maharashtra in its 96<sup>th</sup> meeting and decided to recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 83<sup>rd</sup> meeting.

2. It is noted that the proposal is considered by SEAC-I under screening category 5(f) B1 as per EIA Notification 2006.

### **Brief Information of the project submitted by Project Proponent is as:**

Name of project	Proposed Synthetic Organic Chemicals Manufacturing Facility by SPAK Surfactants Pvt. Ltd.
Project Proponent	SPAK Surfactants Pvt. Ltd.
Name of consultant	Aditya Environmental Service Pvt. Ltd.
New Project / Expansion in	New Project: proposing to establish surfactants manufacturing facility.
Activity schedule EIA Notification	5(f)-B1
Area Details	Total plot area (sq. m.): 19,999 m <sup>2</sup> Built up area (Sq. m.): 5072 m <sup>2</sup> Area for Future expansion: 696 m <sup>2</sup> Road/ Open space area: 12231 m <sup>2</sup> Green belt area: 2,000 m <sup>2</sup>
Name of the Notified Industrial area / MIDC	MIDC Lote Parshuram
Estimated capital cost of the Project	10.5 Crores
Location details of	Latitude: 17°35'37.342" N

the project :	Longitude: 73°29'15.834" E Location: MIDC Lote Parshuram Elevation above Mean Sea Level (meters): 215 m														
Raw materials (including Process chemicals, catalysts, & additives).	Name of Chemical	Quantity	Mode of Transportation												
	For 1000 Kg of Ester manufacture:														
	Fatty Acids	600-1000 Kg	By Road												
	Sorbitol 70% Solution	400-700 Kg	By Road												
	Or														
	Fatty Acids	600-1000 Kg	By Road												
	Glycerine	150-300 Kg	By Road												
	Or														
	Fatty Acids	600-1000 Kg	By Road												
	Trimethylol Propane/ Pentaerthritol (Polyol)	100-200 Kg	By Road												
	Or														
	Fatty Acids	600-1000 Kg	By Road												
	Mono Ethyl glycol/ Propylene Glycol	100-200 Kg	By Road												
	For 1000 Kg of Sulphosuccinate Surfactants manufacture:														
	Maleic Anhydride	50-200 Kg	By Road												
	2-Ethyl Hexanol	100-500 Kg	By Road												
	Sodium bisulphite	40-200 Kg	By Road												
	Or														
	Maleic Anhydride	50-200 Kg	By Road												
	Amyl Alcohol	200-300 Kg	By Road												
	Sodium Bisulphite	40-200 Kg	By Road												
	For 1000 Kg of CAPB manufacture:														
	Coconut/ Palm Kernel Oil	180-300 Kg	By Road												
Dimethyl Amino Propyl Amine	70-120 Kg	By Road													
Monochloro Acetic Acid	80-120 Kg	By Road													
Production details	Existing facility is manufacturing the following products: NA Proposed Manufacture of following products:														
	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Product</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Esters</td> <td rowspan="4">12000 MTPA</td> </tr> <tr> <td>2.</td> <td>Sulphosuccinnate Surfactant</td> </tr> <tr> <td>3.</td> <td>Coco Amido Propyl Betaine</td> </tr> <tr> <td>4.</td> <td>Formulation of Esters &amp; Surfactants</td> </tr> </tbody> </table>		S. No.	Product	Quantity	1.	Esters	12000 MTPA	2.	Sulphosuccinnate Surfactant	3.	Coco Amido Propyl Betaine	4.	Formulation of Esters & Surfactants	
S. No.	Product	Quantity													
1.	Esters	12000 MTPA													
2.	Sulphosuccinnate Surfactant														
3.	Coco Amido Propyl Betaine														
4.	Formulation of Esters & Surfactants														
Total Water Requirement	Total water requirement: Fresh water (CMD): 110 Source: MIDC Lote Parshuram Recycled water (CMD): 19 Use of the water: Process (CMD):30 Cooling water (CMD): DM Water/ Boiler Water (CMD): 72 } Drinking (CMD): 8 Green belt (CMD): 10 (Treated Effluent) Fire service (CMD): Nil														

	Others (CMD): 9 (Treated effluent for coal/ dust suppression)				
Sewage generation and treatment	Amount of sewage generation (CMD): 6 Proposed treatment for the sewage: NA				
Effluent characteristic	Parameter	ETP Inlet	ETP Outlet	MPCB Limit	
	pH	6.5-8.9	5.5 to 9.0	5.5 to 9.0	
	COD (mg/l)	9639-26104	< 250	Not to exceed 250 mg/l	
	BOD 3 days @27°C(mg/l)	3500-9250	<100	Not to exceed 100 mg/l	
	Suspended Solid(mg/l)	284-679	<100	Not to exceed 100 mg/l	
	Oil & Grease(mg/l)	3.2-26.6-	<10	Not to exceed 10 mg/l	
	TDS (mg/l)	980-1356	<2100	Not to exceed 2100 mg/l	
	Chlorides (mg/l)	131-357	<600	Not to exceed 600 mg/l	
	Sulphates (mg/l)	7.55-126	<1000	Not to exceed 1000 mg/l	
ETP Details	Amount of effluent generation (CMD): 20 Capacity of the ETP (CMD): 25 Amount of treated effluent recycled (CMD):19				
Note on ETP technology to be used	ETP/MEE				
Disposal of the ETP sludge (If applicable)	CHWTSDF				
Solid waste/ Hazardous waste Management	Solid waste generation and disposal:				
	S. N.	Type of Waste	Quantity	UOM	Mode of Disposal
		Fly Ash	11	TPD	Sold to brick manufacturer/ sent to authorized landfill site.
		Burnt sugar	200	KGPD	Burnt in boiler.
	Hazardous waste generation and disposal:				
	Cat e.	Type of Waste	Quantity	UOM	Mode of Disposal
	5.1	Used Oil	2	MTPM	Authorized reprocessor/ CHWTSDF
34.3	ETP Sludge	8	MTPM	CHWTSDF	
35.1	Filter Cloth	0.5	MTPM	Authorized Recycler	
Atmospheric Emissions (Flue gas characteristics SPM, SO <sub>2</sub> , NO <sub>x</sub> , CO, etc.)	Sr. No.	Pollutant	Source of Emission	Emission rate (kg/hr)	Concentration in flue gas (g/m <sup>3</sup> )
	1	SPM	Boiler x3	Coal: 160 Kg/hr	100 mg/Nm <sup>3</sup>
	2	SO <sub>2</sub>		Biomass Bri.: 180 Kg/hr	Coal: 163.9 Kg/day F.O.: 449.2 Kg/day Biomass: Nil
	3	NO <sub>x</sub>			--
	4	CO	TFHx3	Coal: 267 Kg/hr	--
	5	Other		Biomass Bri.: 305 Kg/hr	--
			F.O.: 118 kg/ hr		
Stack emission	Stack number(s)	1	2		

<p>Details: (All the stacks attached to process units, Boilers, captive power plant, D.G. Sets, Incinerator both for existing and proposed activity). Please indicate the specific section to which the stack is attached. e.g.: Process section, D. G. Set, Boiler, Power Plant, incinerator etc. Emission rate (kg/hr.) for each pollutant (SPM, SO<sub>2</sub>, NO<sub>x</sub> etc. should be specified</p>	Attached to	Boiler (3)	Thermic Fluid Heater (3)			
	Capacity	1000 kg/hr Each	8,00,000 Kcal/ hr each			
	Fuel type	Coal/Agro waste	Coal/Agro waste/ F.O.			
	Fuel quantity	Coal: 160 Kg/hr Biomass Bri.: 180 Kg/hr	Coal: 267 Kg/hr Biomass Bri.: 305 Kg/hr F.O: 188 kg/ hr			
	Material of construction	MS	MS			
	Shape (round/rectangular)	Round	Round			
	Height, m (above ground level)	30	33			
	Diameter/size, in meters	0.35	0.50			
	Gas quantity, Nm <sup>3</sup> /hr	1850	2950			
	Gas temperature °C	160	180			
	Exit gas velocity, m/sec.	9-10	9-10			
	TPM, mg/Nm <sup>3</sup>	<100	<100			
	SO <sub>2</sub> from Coal Kg/day	230.4	384.5			
	SO <sub>2</sub> from Agro waste, Kg/day	Nil	Nil			
SO <sub>2</sub> from FO Kg/day	--	406				
APC to be provided	Multi Cyclone Dust Collector	Multi Cyclone Dust Collector				
Emission Standard	Pollutants (SPM, SO <sub>2</sub> , etc)	Emission Standard Limit (mg/Nm <sup>3</sup> )	Proposed Limit (mg/Nm <sup>3</sup> )	MPCB Consent (mg/Nm <sup>3</sup> )		
	TPM	150mg/Nm <sup>3</sup>	<150mg/Nm <sup>3</sup>	--		
	SO <sub>2</sub>	Coal: 163.9 Kg/day Biomass: Nil	Coal: 384.5 Kg/day F.O.: 50.8 Kg/day Biomass: Nil	--		
Ambient Air Quality Data	Pollutant	Permissible Standard	Proposed Concentration (in µg/m <sup>3</sup> )	Remarks		
	SPM	100	56-73			
	RPM		--			
	SO <sub>2</sub>	80	24-41			
	NO <sub>x</sub>	80	21-35			
	CO	4	1.2-2.2			
NA, since it is new project						
Details of Fuel to be used:	S. N.	Type of Fuel	Boiler	Thermic Fluid Heater	Sulphur Content	Ash Quantity
	1	Furnace Oil	--	4.5 MTPD	4.5 %	Nil

	Or					11 TPD
	2	Coal	11.52 MTPD	19.2 MTPD	1 %	
	Or					
	3	Biomass briquettes	12.96 MTPD	21.96 MTPD	Nil	
4	HSD* KLPD	400			--	--
Energy	Power supply: Proposed power requirement: 400 KW DG sets: Number and capacity DG sets to be used (proposed): 1x 800 KVA					
Green Belt Development	Green belt area (Sq. m.): 2,000 Number and species of trees to be planted: 150					
Details of Pollution control system	S. N.	Parameter	Existing pollution control system		Proposed to be installed	
	1	Air	--		Stack of sufficient height MDC	
	2	Water	--		ETP/MEE	
	3	Noise	--		Silencer, ear muffs etc	
	4	Solid Waste	--		Sell to authorized brick manufacturer/ cake manufacturers	
	5	Hazardous waste	--		Sale to authorized recycler/ processor or disposal to CHWTSDF.	
Environmental Management plan Budgetary Allocation	Capital cost (With break up):as below O&M cost (With break up): as below					
	Sr. No.		Recurring Cost per annum(Rs. in Lac)		Capital cost (Rs. in Lac)	
	1	Air Pollution Control	5		15	
	2	Water Pollution Control	10		55	
	3	Noise Pollution Control	--		--	
	4	Environment Monitoring and Management	3		2	
	5	Reclamation borrow/ mined area (If applicable)	--		--	
	6	Occupational Health	3		2	
	7	Green Belt	2		3	
	8	Solid waste management	3		0	
	9	Social welfare	5		0	
Total		31		77		

Storage of chemicals (inflammable /explosive/hazardous/toxic substances)

Sr.	Liquid	M. O. C.	Capacity	Volume	Diameter	Height	Safety
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No.			(MT)	(m3)	(m)	(m)	Feature
1	Oleic Acid	PP+FRP/ M.S.+S.S.	50	50.05	3.5	5.2	NR
2	Coconut fatty Acid	PP+FRP with coil/ M.S.+S.S.	50	50.05	3.5	5.2	NR
3	Rice Bran Fatty Acid	M.S.	50	50.05	3.5	5.2	NR
4	Rice Bran Fatty Acid	M.S.	50	50.05	3.5	5.2	NR
5	Coconut oil	PP+FRP with coil/ M.S.+S.S.	50	50.05	3.5	5.2	NR
6	2 Ethyl Hexanol	PP+FRP	50	50.05	3.5	5.2	NR
7	Methanol ( Underground )	M.S.	15	--	2.2	5	As per guidance of Controller of Explosive
8	Sorbitol	PP+FRP/ M.S.+S.S.	50	50.05	3.5	5.2	NR
9	Spare Tank	PP+FRP/ M.S.+S.S.	50	50.05	3.5	5.2	NR
10	Sorbitan Mono-Oleate	PP+FRP/ M.S.+S.S.	50	50.05	3.5	5.2	NR
11	Sorbitan Mono Laurate	PP+FRP/ M.S.+S.S.	50	50.05	3.5	5.2	NR
12	Sorbitan Tri-Oleate	PP+FRP/ M.S.+S.S.	50	50.05	3.5	5.2	NR
13	Coco Amido Propyl Betaine	PP+FRP	50	50.05	3.5	5.2	NR
14	Furnace Oil	M.S.	20	--	2.2	6.5	As per guidance of Controller of Explosive

3. The proposal has been considered by SEIAA in its 83<sup>rd</sup> meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :

**General Conditions for Pre- construction phase:-**

- (i) This Environment clearance issued subject to Orders passed by Hon'ble NGT, Hon'ble High Court, if any
- (ii) This Environment clearance is issued subject to condition that (a) Adhere to specified outlet details of Effluent characteristics of ETP as per prevailing Rules (b) PP to provide separate electric meter with AMR facility for online monitoring.

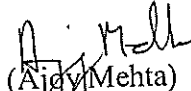
- (iii) No additional land shall be used /acquired for any activity of the project without obtaining proper permission.
- (iv) For controlling fugitive natural dust, regular sprinkling of water & wind shields at appropriate distances in vulnerable areas of the plant shall be ensured.
- (v) Regular monitoring of the air quality, including SPM & SO<sub>2</sub> levels both in work zone and ambient air shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board (MPCB) & submit report accordingly to MPCB as applicable.
- (vi) Necessary arrangement shall be made to adequate safety and ventilation arrangement in furnace area.
- (vii) Proper Housekeeping programmes shall be implemented.
- (viii) In the event of the failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.
- (ix) A stack of adequate height based on DG set capacity shall be provided for control and dispersion of pollutant from DG set.(If applicable)
- (x) A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.
- (xi) Arrangement shall be made that effluent and storm water does not get mixed.
- (xii) Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.
- (xiii) Leq of Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided.
- (xiv) The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.
- (xv) Green belt shall be developed & maintained around the plant periphery. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- (xvi) Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.
- (xvii) Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act.
- (xviii) The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- (xix) 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 Waste (Management and Handling) Rules, 2003 (amended). Authorization from the MPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.
- (xx) The company shall undertake following Waste Minimization Measures :
  - Metering of quantities of active ingredients to minimize waste.
  - Reuse of by- products from the process as raw materials or as raw material substitutes in other process.
  - Maximizing Recoveries.
  - Use of automated material transfer system to minimize spillage.

- (xxi) Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes / improvements required, if any, in the on-site management plan shall be ensured.
  - (xxii) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
  - (xxiii) Transportation of ash will be through closed containers and all measures should be taken to prevent spilling of the ash.
  - (xxiv) Separate silos will be provided for collecting and storing bottom ash and fly ash.
  - (xxv) Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department
  - (xxvi) The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <http://ec.maharashtra.gov.in>
  - (xxvii) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1<sup>st</sup> June & 1<sup>st</sup> December of each calendar year.
  - (xxviii) A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
  - (xxix) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
  - (xxx) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
  - (xxxi) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.
4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project



proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.

5. The Environment department reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
6. **Validity of Environment Clearance:** The environmental clearance accorded shall be valid for a period of 5 years to start of production operations.
7. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
8. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.
9. Any appeal against this environmental clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune), New Administrative Building, 1<sup>st</sup> Floor, D-, Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

  
(Ajay Mehta)  
Principal Secretary,  
Environment department &  
MS, SEIAA.

**Copy to:**

1. Shri. R. C. Joshi, IAS (Retd.), Chairman, SEIAA, Flat No. 26, Belvedere, Bhulabhai desai road, Breach candy, Mumbai- 400026.
2. Shri T. C. Benjamin, IAS (Retired), Chairman, SEAC-I, 602, PECAN, Marigold, Behind Gold Adlabs, Kalyani Nagar, Pune – 411014. .
3. Additional Secretary, MoEF & CC, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.
4. Member Secretary, Maharashtra Pollution Control Board, with request to display a copy of the clearance.
5. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shankar Nagar, Bhopal- 462 016). (MP).
6. Regional Office, MPCB, Ratnagiri.

7. Collector, Ratnagiri
8. IA- Division, Monitoring Cell, MoEF & CC, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.
9. Select file (TC-3)

(EC uploaded on 4/4/2015 )