CHAPTER – I
INTRODUCTION

1.0 PURPOSE OF THE REPORT

Environmental Management plays a vital role in sustainable development of a country. Recognizing its importance, the Ministry of Environment and Forest, Government of India had formulated policies and procedures governing the industrial and other developmental activities to prevent indiscriminate exploitation of natural resources and to promote integration of environmental concern in developmental projects.

The Ministry of Environment & Forest has made prior Environmental Clearance (EC) for certain developmental projects mandatory through its notification issued on 14th September 2006 and its subsequent amendment.

Environmental Impact Assessment (EIA) is systematic process to identifying, predicting, evaluating and mitigating the biophysical, social and other relevant environmental effects due to the proposed developmental project. It plays a vital role in providing information for decision-making on the environmental consequences of proposed projects. It promotes environmentally sound and sustainable development through the identification appropriate enhancement and mitigation measures.

The proposed expansion of expansion of Asbestos cement sheet unit has both positive and negative impacts on the environment. The negative impacts include environmental degradation and adverse socio economic changes. It is the responsibility of the company to document the associated positive and negative impacts, so that the attempts can be made to minimize the effects due to the negative impacts and maximize the benefits due to the positive impacts. In this regards, Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) have been considered as the most important documentation in understanding the environmental implications and safeguarding the environment.

1.1 IDENTIFICATION OF PROJECT & PROJECT PROPOONENT

Identification of Project

Asbestos Cement Sheet (ACS) is a building material in which asbestos fibres are used to reinforce thin rigid cement sheets. It is a very popular building material, largely due to its
durability. The roofing industry is largely a commoditized business. While ACS started out as an industrial product, the increase in production and increase in the number of access points has made it into a retail product. With 4 dominant players in this oligopolistic industry, pricing is generally similar and there is limited brand premium. 80% of the sales come from rural markets with the balance 20% coming from the industrial and other segments (warehouses, poultry, urban slums etc).

The ACS industry de-grew by ~5% in FY10, grew by ~3.5% in FY11 and grew further by ~7% in FY12. The industry is estimated to grow at ~6.9% for the next few years on account of increased income in rural areas coupled with various initiatives by the Government for affordable housing such as Indira Awas Yojna, Golden Jubilee Rural Housing Finance Scheme and Pradhan Mantri Adarsh Gram Yojana. Additionally, other schemes such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) guarantee employment to low-income individuals, which also helps generate demand for the roofing industry.

Currently there are 20 entities in the Industry with about 68 manufacturing plants throughout the country. The products are marketed under their respective brand names mainly through dealers for the retail market and directly for projects and government departments. Traditionally most players are concentrated in the Southern markets due to easy access to raw materials such as cement and greater affordability and desire to move into pucca houses. However, in recent years, the market leaders have been expanding operations to other markets as they realize the vast untapped market in other regions and to benefit out of rising incomes in those regions. The leading players in the industry are Hyderabad Industries Ltd, Visaka Industries Ltd, Ramco Industries Ltd and Everest Industries Ltd. These players account for ~72% of the industry’s capacity.

**Project Proponent**

M/s North East Roofing Pvt. Ltd. is an existing plant manufacturing 50,000 TPA of Asbestos Cement Sheets and its Accessories at Bonda Industrial Estate, Bonda Village No.1, Narangi, Panikheti GP, Chandrapur –C D Block, Kamrup District, Assam State. The existing plant is having Environmental Clearance vide letter no. J-11011/332/2006-IA-II (I) (T) dated 5th July 2007. Now as a part of expansion, company proposed to expand the capacity of
manufacturing of Asbestos Cement Sheets and Accessories from 50,000 TPA to 70,000 TPA in the existing plant premises.

<table>
<thead>
<tr>
<th>Name of product</th>
<th>Existing</th>
<th>Expansion</th>
<th>After Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asbestos cement sheets and Accessories</td>
<td>50,000 TPA</td>
<td>20,000 TPA</td>
<td>70,000 TPA</td>
</tr>
</tbody>
</table>

As per the Ministry of Environment & Forests, New Delhi notification, dated 14th September, 2006 Asbestos Cement Sheet & Accessories unit is classified under Category ‘A’. M/s. North East Roofing Pvt. Ltd. has proposed to enhance the production capacity of Asbestos cement sheets & Accessories unit.

The production enhancement will be taken up in the existing plant premises situated at Bonda Industrial Estate, Bonda Village No.1, Narangi, Panikheti GP, Chandrapur –C D Block, Kamarup District, Assam State.

Form –I along with proposed TOR for REIA study & Feasibility report have been submitted to MoEF. A presentation was made before the Honourable Expert Appraisal Committee (Industry) of the Ministry of Environment & Forests during 6th Expert Appraisal Committee (Industry) meeting scheduled on 22nd – 23rd December 2009 for the approval of TOR for EIA study and accordingly TOR letter has been issued Hon’ble Ministry vide letter no. J-11011/631/2009-IA II (I) dated 7th January 2010. And after that subsequently an amendment in TOR validity & production capacity is obtained vide MoEF minutes of 11th Reconstituted EAC (Industry) held during 26th to 27th August 2013.

Pioneer Enviro Laboratories & Consultants Private Limited, Hyderabad, which is accredited by NABET, Quality Council of India for conducting EIA studies for Asbestos Cement sheet and accessories unit, have prepared Environmental Impact Assessment (EIA) report for the proposed plant.

Draft EIA Report has been prepared by incorporating the TOR stipulated by the Ministry of Environment & Forests, New Delhi.

This report furnishes the details of location of Site, Description of the project, prevailing baseline status w.r.t Air Environment, Water Environment, Noise Environment, Land Environment, Flora & Fauna and Socio-economic environment. This report also helps in identification of environmental impacts and suggesting mitigation measures to be followed during Construction and Operation of the proposed project as a part of Environmental
North East Roofing Pvt. Ltd.

Expansion of Asbestos Cement Sheet and Accessories Unit

Management Plan. This report also acts as guidance manual for the proponent for following the Environmental Management Plan (EMP) and for adopting post project Environmental Monitoring Program as per statutory norms.

1.2 BRIEF DESCRIPTION

1.2.1 NATURE OF THE PROJECT

M/s North East Roofing Pvt. Ltd. is an existing Asbestos Cement sheet & Accessories manufacturing unit with a production capacity of 50,000 TPA at Bonda Industrial Estate, Bonda Village No.1, Narangi, Panikheti GP, Chandrapur –C D Block, Kamarup District, Assam State. The company has obtained the Environmental Clearance for existing unit and subsequently obtained Consent for Establishment and Consent for Operation. Now as a part of capacity enhancement, company is increasing the production the capacity of Asbestos Cement sheet & Accessories manufacturing unit from 50,000 TPA to 70,000 TPA at existing premises itself.

Asbestos Cement Corrugated Sheet Plant is based on fully automated closed system by adopting “Hatschek Process (Wet System)” which is more commercially viable and is currently in use in the majority of the Asbestos Cement Corrugated Sheet plants in India. This process is adopted in many countries and it is proposed to introduce the same process with latest development in the technology and machines.

The raw materials required are Cement -OPC, Fly Ash, Asbestos Fibres (Chrysotile) & Pulp.
1.2.2 SIZE OF THE PROJECT

M/s North East Roofing Pvt. Ltd. has proposed to enhance the production capacity of Asbestos cement sheet and Accessories manufacturing unit from 50,000 TPA to 70,000 TPA in existing plant premises at Bonda Industrial Estate, Bonda Village No.1, Narangi, Panikheti GP, Chandrapur –C D Block, Kamarup District, Assam State.

The following is the production capacity of existing and proposed expansion:

<table>
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</table>

The plant consists of the following Sections:

<table>
<thead>
<tr>
<th>S.No</th>
<th>Sections</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Feeding Sections for Raw materials</td>
</tr>
<tr>
<td>2</td>
<td>Sheet Forming Section</td>
</tr>
<tr>
<td>3</td>
<td>Corrugation Section</td>
</tr>
<tr>
<td>4</td>
<td>De stacking section</td>
</tr>
<tr>
<td>5</td>
<td>Curing &amp; dispatch</td>
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</tbody>
</table>

1.2.3 LOCATION OF THE PROJECT

The proposed enhancement project will be taken up in existing plant premises at Bonda Industrial Estate, Bonda Village No.1, Narangi, Panikheti GP, Chandrapur –C D Block, Kamarup District, Assam State.

The Management is in possession of 8,765.799 Sq. M of land and proposed enhancement will be taken up in the existing plant premises. No additional land is envisaged.

The following factors have been considered for selecting the existing unit:

a) Availability of suitable and adequate facilities.
b) Availability of water.
c) Availability of raw materials.
d) Availability of man power.
e) Availability of infrastructural facilities
f) Proximity to Markets
g) Suitability of land from geological and topographical aspects.
The following Environmental Setting of the proposed project site:

- The following are the Co-ordinates of the Plant site.
  - Latitude  - 26°11'7.25"N
  - Longitude - 91°50'32.96"E
- The proposed project area does not fall under the industrial areas / clusters, which are listed in MoEF office memorandum, dated 13th January 2010 and its subsequent amendments.
- Nearest village / habitation is Bonda, is adjacent to the plant site.
- No National Parks, Bird Sanctuary, Biosphere reserve are situated within 10 Km. radius of the plant site.
- Khanapara R.F & Mylliem RF are situated within 10 Km. radius of the plant site.
- No forest land is involved in the plant site.
- Brahmaputra river is flowing at distance of 3.2 Kms from the plant site.
- Nearest Railway Station is Narangi RS situated at 1.0 Km. from the plant site.
- Following Industries are situated within 10 Km. radius of the plant site: [TOR # 9]
  - M/s. PDP Steel Ltd.
  - M/s. Assam Roofing Ltd.
  - M/s. Assam Carbon Ltd.
  - M/s. Indian Oil Corporation (Nunamati Refinery complex)

The proposed site is in accordance with MoEF guidelines. A map showing general location of the proposed site is shown in Fig. 1.1.
North East Roofing Pvt. Ltd.

Expansion of Asbestos Cement Sheet and Accessories Unit

REIA report: Ch-1

10 Km RADIUS TOPO MAP SHOWING SITE SURROUNDINGS

Plant site

Scale: 1 cm = 800 m
1.2.4 IMPORTANCE OF PROJECT

Asbestos based products play a vital role in the growth of the key and priority sectors of the Indian economy. Asbestos cement sheets go along way to achieve national goals of providing low-cost and cost-effective domestic and industrial shelters, Poultry forms, Industrial Sheds etc. with an equitable social cost.

With the 10 % growth of Population, every year, the demand for AC Sheets also is increasing year by year. Hence, there is a need to set up new units every year, to cater to the needs of demand growth.

By this expansion we can improve the economic & Social conditions of the area by providing employment and other facilities.

Considering the demand of Asbestos sheets in India and the experience gained by the group in this sector, North East Roofing Pvt Ltd decide to expand the production capacity of Asbestos cement sheet and Accessories manufacturing unit from 50,000 TPA to 70,000 TPA in existing plant premises at Bonda Industrial Estate, Bonda Village No.1, Narangi, Panikheti GP, Chandrapur –C D Block, Kamrup District, Assam State.
1.3 **SCOPE OF THE STUDY**

The scope of work includes a detailed characterization of the environment in an area of 10 Km. radius of the plant for various environmental parameters like Air environment, Water environment, Noise environment, Land environment, Biological environment, Socio-economic aspects etc. The Draft EIA Report is prepared based on TOR issued by EAC (Industry).

Generic Structure of the Environmental Impact Assessment (EIA) report as per the EIA notification of the MoEF, GoI dated 14th September 2006 and its subsequent amendments is detailed below:

<table>
<thead>
<tr>
<th>Chapter No.</th>
<th>EIA Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introduction</td>
</tr>
<tr>
<td>2.</td>
<td>Project Description</td>
</tr>
<tr>
<td>3.</td>
<td>Description of the Environment</td>
</tr>
<tr>
<td>4.</td>
<td>Anticipated Environmental Impact &amp; Mitigation Measures</td>
</tr>
<tr>
<td>5.</td>
<td>Analysis of Alternatives (Technology &amp; Site)</td>
</tr>
<tr>
<td>6.</td>
<td>Environmental Monitoring Program</td>
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<tr>
<td>7.</td>
<td>Additional Studies</td>
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<tr>
<td>8.</td>
<td>Project Benefits</td>
</tr>
<tr>
<td>9.</td>
<td>Environmental Cost – Benefit Analysis</td>
</tr>
<tr>
<td>10.</td>
<td>Environmental Management Plan (EMP)</td>
</tr>
<tr>
<td>11.</td>
<td>Summary &amp; Conclusion</td>
</tr>
<tr>
<td>12.</td>
<td>Disclosure of Consultant engaged</td>
</tr>
</tbody>
</table>
1.4 ENVIRONMENTAL CLEARANCE PROCESS (Category – A Project)

- Project Concept and Site identification*
  - Form 1, pre-feasibility project report with proposed TOR to MoEF (EAC)
  - Scoping by EAC (site visit by sub group of EAC, if necessary)

  - TOR approved by EAC
    - Draft EIA report to SPCB/UTPCC by project proponent
    - Public consultation process by SPCB/UTPCC
    - Proceedings of public consultation
    - Appraisal and recommendation by EAC

  - EC-rejected by MoEF on the recommendation of EAC
    - Summary EIA and Form I – display on the website by SPCB/UTPCC

- Display on the MoEF website
- Display at Panchayat, ZP, DM/DC/Dy. Com & on the SPCB/UTPCC website

- To proponent for submission of final EIA report / Supplementary report to draft EIA
  - Refereed back to EAC under communication to the project proponent
  - Display on MoEF website & project proponent website

- Rejected
  - Approved
    - Post EC monitoring
    - Submission of half yearly compliance report to MoEF/ RO-MoEF

- Display of compliance report on MoEF website

* The proponent should apply for CRZ clearance, as per applicability