CHAPTER – 1

INTRODUCTION

1.1 PURPOSE OF THE REPORT
An EIA is a systematic process that predicts and evaluates the potential impacts a proposed project may have on aspects of the physical, biological, socio-economic and human environment. Mitigation measures are then developed and incorporated into the project to eliminate, minimize or reduce adverse impacts and, where practicable, to enhance benefits. This introductory chapter presents an overview of the project, provides details of the EIA team and outlines the approach taken to undertake the EIA. In addition the structure of the remainder of the report is outlined.

This Environmental Impact Assessment study is carried out as a part of the process to obtain Environmental Clearance for the proposed project of M/s. Numaligarh Refinery Limited. The proposed project is categorized as A under 5(g), (ii) (All Cane juice/non-molasses based distilleries ≥30 KLD) as per EIA Notification, dated 14th September, 2006 & its subsequent amendments.

1.2 IDENTIFICATION OF PROJECT AND PROJECT PROPOONENT
Numaligarh Refinery Limited is a BPCL group company, currently operating a 3 MMTPA refinery in Numaligarh in Golaghat district in the state of Assam. Numaligarh Refinery Limited (NRL) and Chempolis have signed a Memorandum of Understanding (MoU) for establishing a bio-refinery in North-East India. Through this partnership, both NRL and Chempolis are targeting at larger production of sustainable bio-fuels in India, which would reduce India’s dependence on imported petroleum. The bio-refineries will be based on Chempolis’ 3rd generation bio-refining technology, which enables selective fractionation of biomass and co-production of multiple products in a sustainable way.

1.3 BRIEF DESCRIPTION OF THE PROJECT
M/s. Numaligarh Refinery Limited proposes to set up a Bamboo based Bioethanol Project at Village Owguri Chapori Gaon, Tehsil Golaghat, adjacent to Numaligarh Refinery, Mouza- Morongi, District Golaghat, Assam to manufacture Ethanol (49,000 tonnes/annum), Acetic Acid (11,000 tonnes/annum), Furfural (19,000 tonnes/annum), Combustible residues of Biocoal (1,60,000 tonnes/annum) and Stillages (dry basis, 30,000 tonnes/annum). Power requirement as well steam requirement will be full filled by 20 MW CPP. Surplus power will be sell to grid.

1.4 SCOPE OF THE STUDY
The scope of work of EIA/EMP studies of the proposed project of M/s. Numaligarh Refinery Limited includes detailed characterization of various environmental components such as micro-meteorology, air, noise, water, land, ecology & biodiversity and socio economy within 10 km radius from the existing and proposed project activities. The main objectives of the study are:-

- To identify and quantify significant impacts due to various operations of the existing and proposed project on various environmental components through prediction of impacts.
- To evaluate the beneficial and adverse impacts of the existing and proposed project.
- To evaluate and implement the Environmental Management Plan (EMP) detailing control measures and its efficiency to minimize the pollution levels within the permissible norms.
- To assess the probable risks, likely to occur in unit and suggest appropriate measures to avoid the same.
- To design an occupational health & safety plan for the employees.
- To design post project monitoring plan for regulating the environmental quality within the limits and help in sustainable development of the area.
1.5 STRUCTURE OF EIA REPORT
The objective of the EIA study is to prepare Environment Impact Assessment (EIA) and Environmental Management Plan (EMP) report based on the guidelines of the Ministry of Environment, Forests and Climate Change (MoEFCC) and CPCB. The contents of the study are arranged as follows:

- Chapter 1 is an Introduction to the Industry, purposes of the report, Project, information of project proponent and regulatory frame work.
- Chapter 2 presents a Description of Project and Infrastructure facilities including all industrial and environmental aspects of M/s. Numaligarh Refinery Limited during operation phase activities as well as manufacturing process of proposed product. This chapter also gives information about location, raw material storage and handling, water and wastewater quantitative details, air pollution and control system, Hazardous Waste generation, storage facility and disposal and utilities for proposed production capacity of plant. It also provides information about existing project and Environmental Management Facilities.
- Chapter 3 covers Baseline Environmental Status including meteorological details, Identification of baseline status of Environmental components of the surrounding area covering air, water and land environment, study of land use pattern, Biological & Socio-Economic Environment giving details about district and the study area in terms of land use pattern, biological environment, and socio-economic environment.
- Chapter 4 deals with Identification and Prediction of Impact, which provides quantification of significant impacts of the existing and proposed project activities on various environmental components. Evaluation of the proposed pollution control facilities has been presented.
- Chapter 5 describes details of analysis of alternatives considered for the technologies and site.
- Chapter 6 describes Environment Monitoring Programme adopted and to be adopted.
- Chapter 7 gives the information of Public Hearing and Risk Analysis and Disaster Management Plan that is/will be adopted by the company.
- Chapter 8 gives the benefits of the proposed project.
- Chapter 9 describes details of Environmental cost benefits analysis
- Chapter 10 describes Environment Management Plan (EMP) to be adopted for mitigation of anticipated adverse impacts if any and to ensure acceptable impacts.
- Chapter 11 gives the summary and conclusion of the project.
- Chapter 12 gives the information of consultants.

1.6 REGULATORY FRAME WORK
Environment clearance application in form-I along with pre-feasibility report to Ministry of Environment, Forest and Climate Change was submitted and subsequently, Terms of References (TOR) meeting was held and TOR for EIA study was issued.

The EIA/EMP Report has been prepared in line with Terms of Reference (TOR) suggested by Expert Appraisal Committee (Industry-II) vide MoEF&CC letter No. F. No. J-11011/274/2015-IA II (I), dated 5th May, 2016 which is enclosed as annexure-I.