EXECUTIVE SUMMARY

OF

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

FOR

PUBLIC HEARING

OF

PRODUCTION CAPACITY ENHANCEMENT OF WRITING AND PRINTING GRADES OF PAPER FROM 90 TPD TO 140 TPD

AT
7th KM Stone, Moradabad Road, Kashipur, District Udham Singh Nagar, Uttrakhand

APPLICANT

M/s. NAINI PAPERS LTD.
7th KM, Moradabad Road, Kashipur, Uttrakhand
Ph: +91-5947 275913/14/15; Fax: +91-5947 260257
Email: etp@nainigroup.com
EXECUTIVE SUMMARY

1.0 PROJECT DESCRIPTION

1.1 INTRODUCTION

M/s. Naini Papers Limited is a part of Naini Group of Industries, situated at 7th K.M. Stone from Kashipur on Moradabad Road. The Plant was commissioned in Year 1998 and presently it has a production capacity of 90 TPD writing & Printing grades of paper. Presently, the mill is manufacturing premium quality of writing and printing grades of paper in agro based segment.

1.2 TYPE OF PROJECT

The company is now proposing for an enhancement of production capacity of writing & printing grade of paper from 90 TPD to 140 TPD. As per EIA Notification dated 14th Sept., 2006, as amended from time to time; the project falls under Category “A”, Project or Activity ‘5(i)-(3) [Pulp manufacturing and Pulp & Paper manufacturing industry]’.

The project has been considered in front of Expert Appraisal Committee (EAC) (Industry) for its First Technical Presentation (for ToR approval) on 30th July, 2014.


1.3 NEED FOR THE PROJECT

In India, the demand for paper is set up to far surpass supply, with the growing emphasis on education and alternative uses of paper.

The demand for paper is influenced by various macro-economic factors like national economic growth, industrial production, promotional expenditure, population growth and the Governments allocation for the educational sector. Domestic demand for paper is expected to grow at a CAGR of 6-7%. India’s paper demand is expected to touch 8 million TPA by 2010. A leading global paper industry consultant projects a shortage of about 0.70 million TPA by 2010.

In view of country’s growth, M/s. Naini Papers Ltd. project will be substantially added to enhance economy and for the company it would be another milestone project.
### Executive Summary

1.4 BRIEF DESCRIPTION OF THE PROJECT

#### TABLE - 1

Brief Description of the Project

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>PARTICULARS</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Nature and Size of the Project</td>
<td>Proposed Enhancement of Production Capacity of Writing &amp; Printing Grades of Paper from 90 TPD to 140 TPD.</td>
</tr>
<tr>
<td>B.</td>
<td>Location Details</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Location</td>
<td>7th K.M. Stone, Moradabad Road</td>
</tr>
<tr>
<td>2.</td>
<td>Tehsil</td>
<td>Kashipur</td>
</tr>
<tr>
<td>3.</td>
<td>District</td>
<td>Udham Singh Nagar</td>
</tr>
<tr>
<td>4.</td>
<td>State</td>
<td>Uttarakhand</td>
</tr>
<tr>
<td>5.</td>
<td>Latitude</td>
<td>29°11′56.22&quot;N to 29°12′04.42&quot;N</td>
</tr>
<tr>
<td>6.</td>
<td>Longitude</td>
<td>78°53′40.23″E to 78°53′49.37″E</td>
</tr>
<tr>
<td></td>
<td>Location Map of the Plant Site has been given in Figure 1</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td>Area Details</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Plant Area</td>
<td>Total plant area is 19.63 ha (48.5 acres)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proposed capacity enhancement will be done within the existing plant premises</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6.47 ha (16 acres) i.e. 33% of Total Area is already under Green belt/Plantation and the same will be maintained.</td>
</tr>
<tr>
<td>D.</td>
<td>Environmental Setting Details (with approximate aerial distance and direction from the plant site)</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Nearest Town / City</td>
<td>o Thakurduvara (~3 km in SW direction)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Kashipur (~5.5 km in East direction)</td>
</tr>
<tr>
<td>2.</td>
<td>Nearest National Highway</td>
<td>o SH-41 adjacent to plant boundary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o NH-74 (~4.5 km in North direction)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o NH-121 (~6.5 km in East direction)</td>
</tr>
<tr>
<td>3.</td>
<td>Nearest Railway station</td>
<td>Kashipur Railway Station (~6.5 Km in East direction)</td>
</tr>
<tr>
<td>4.</td>
<td>Nearest Airport</td>
<td>Pant Nagar Airport (~59 Km in ESE direction)</td>
</tr>
<tr>
<td>5.</td>
<td>Interstate Boundary</td>
<td>Interstate Boundary (Uttarakhand- UP) is passing nearby the Plant site.</td>
</tr>
<tr>
<td>6.</td>
<td>National Parks, Wild Life Sanctuaries, Biosphere Reserves, Tiger / Elephant Reserves, Wildlife Corridors, Reserved Forests (RF) / Protected Forests (PF) etc. within 10 km radius</td>
<td>There is no National Park, Wild Life Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor, Reserved Forest (RF) / Protected Forest (PF) etc. within 10 km radius</td>
</tr>
<tr>
<td>7.</td>
<td>River / Water Body (within 10 km radius)</td>
<td>Dhandi Nallah (~0.2 km in West direction)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dhela river, (~2.7 km in SSE direction)</td>
</tr>
<tr>
<td>8.</td>
<td>Seismic Zone</td>
<td>Zone - IV as per IS: 1893 (Part-I) : 2002</td>
</tr>
<tr>
<td>E.</td>
<td>Cost details</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Total Cost for the Enhancement Project</td>
<td>Rs. 6.65 Crores</td>
</tr>
<tr>
<td>2.</td>
<td>Cost for Environmental Protection Measures</td>
<td>Capital Cost- Rs. 3.28 Crores</td>
</tr>
</tbody>
</table>

M/s. Naini Papers Ltd.
Production Capacity Enhancement of Writing and Printing Grades of Paper from 90 TPD to 140 TPD
At 7th K.M. Stone, Moradabad Road, Kashipur, District Udham Singh Nagar, Uttarakhand– 244713

Executive Summary

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>PARTICULARS</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Recurring Cost- Rs. 18 Lacs per Annum</td>
</tr>
<tr>
<td><strong>F.</strong></td>
<td>Basic Requirements for the project</td>
<td>Existing</td>
</tr>
<tr>
<td>1.</td>
<td>Water m³/day</td>
<td>5400</td>
</tr>
<tr>
<td>2.</td>
<td>Power (KWH)</td>
<td>9000</td>
</tr>
<tr>
<td>3.</td>
<td>Steam (MT/day)</td>
<td>540 (6 MT/ton of paper)</td>
</tr>
<tr>
<td>4.</td>
<td>Manpower</td>
<td>300</td>
</tr>
</tbody>
</table>
Executive Summary

1.5 Location Map

Figure 1: Location Map
2.0 **MAJOR REQUIREMENTS FOR THE PROJECT**

2.1 **RAW MATERIAL REQUIREMENT, SOURCE AND TRANSPORTATION**

**Table 2**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Particular</th>
<th>Requirements</th>
<th>Source of the Raw Material &amp; Mode of Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Existing</td>
<td>After Capacity enhancement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MT/ Day</td>
<td>MT/day of paper</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Bagasse/Wheat Straw (OD depithed/dusted)</td>
<td>164</td>
<td>1.82</td>
</tr>
<tr>
<td></td>
<td>Imp. Soft wood pulp</td>
<td>3.4</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>Soap stone powder</td>
<td>12.6</td>
<td>0.14</td>
</tr>
</tbody>
</table>

**2.2 FUEL REQUIREMENT**

The boilers (22 TPH & 25 TPH) in the existing unit are utilizing Rice Husk & Bagasse Pith as a Fuel & the same boilers will be used for the proposed expansion. Detailed table of fuel consumption is given below:

**Table: 3**

**Fuel Requirement**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Fuel Used</th>
<th>Existing Requirement</th>
<th>Additional Requirements</th>
<th>Total Requirement after capacity enhancement</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rice Husk</td>
<td>76 TPD</td>
<td>41 TPD</td>
<td>117 TPD</td>
<td>Nearby area</td>
</tr>
</tbody>
</table>
Production Capacity Enhancement of Writing and Printing Grades of Paper from 90 TPD to 140 TPD
At 7th K.M. Stone, Moradabad Road, Kashipur, District Udham Singh Nagar, Uttarakhand– 244713.

Source: Detailed Project Report

<table>
<thead>
<tr>
<th>2.</th>
<th>Bagasse Pith</th>
<th>50 TPD</th>
<th>28 TPD</th>
<th>78 TPD</th>
<th>In house</th>
</tr>
</thead>
</table>

3.0 MANUFACTURING PROCESS DETAILS

A. Pulping Process
- Raw material preparation
- Cooking in Continuous Digester
- Unbleached Pulp washing, refining, screening and cleaning
- Oxygen De-lignifications
- Bleaching & Washing
- Wood Pulp and broke slushing & cleaning

B. Stock Preparation
- Mixing of different types of pulp in different proportion
- Addition of paper making chemicals like AKD, PAC, whitening agents, dyes, fillers etc

C. Paper Making
- The prepared stock from stock preparation is pumped to paper machine head box after diluting it with back water. This dilute suspension of fibers and water is spread over synthetic forming fabric uniformly through head box. This synthetic forming fabric is endless perforated belt. It remains rotating according to machine speed resulting in sheet formation.
- In proceeding stage water is removed from paper web by pressing and drying.
- Calending & winding

D. Converting/Finishing
- Paper is converted in the form of sheet or reels on sheet cutter and rewinder respectively as per customer requirement.
- Sorting of cut sheets manually.
- Packing of sheets (sheets rims) and reels for dispatch.

4.0 DESCRIPTION OF ENVIRONMENT

4.1 Presentation of results (Air, Noise, Water, Soil)
Baseline study of the study area was conducted during October-December 2014. AAQM was done at 8 locations and concentration of PM10 & PM2.5 were found between 60.5 to 92.2 µg/m³ and 27.0 to 44.5 µg/m³, respectively.
As far as the gaseous pollutants SO₂ and NO₂ are concerned, the prescribed CPCB limit of 80 µg/m³ has never surpassed at any station. The concentrations of SO₂ and NO₂ were found to be in range of 6.4 to 14.6 µg/m³ and 14.8 to 26.8 µg/m³ respectively.
Ambient noise levels were measured at 8 locations around the project site. During the baseline study it was seen that in day time noise level varies from 50.2 to 64.9 Leq dB(A) during day time and from 41.9 to 56.4 Leq dB(A) during night time. Noise levels at all locations were observed to be within the prescribed limits.

The ground water analysis for all the 8 sampling stations shows that pH varies from 7.38 to 7.78, total hardness varies from 152.64 to 256.68 mg/l & total dissolved solids varies from 278.0 to 469.0 mg/l.

The analysis results for soil shows that soil is slightly alkaline in nature as pH value ranges from 6.49 to 7.31. The concentration of Nitrogen has been found to be in good amount in the soil samples.

4.2 Biological Environment

**Flora:** Species which are most commonly found in the study area are Pipal (Ficus religiosa), Kathber (Zizyphus xylopyra), Bargad (Ficus bengalensis), Babul (Acacia arabica), Imli (Tamarindus indica), Dhak (Butea monosperma), etc.

**Fauna:** Commonly found animal in the study area are Langur (Prubytis entellus), Chuchundar (Crosidora murria), Bagula (Ardea cineria), Kabutar (Columba livia), Green Girgit (Calotes versicolor), etc.

4.3 SOCIO-ECONOMIC ENVIRONMENT

The population as per 2011 Census records is 482628 (for 10 km radius buffer zone). Scheduled Caste population of the study area (10 km) is 16.93% and Scheduled Tribe is 0.14%. Percentage of literacy is 74.04% and that of workers those actually engaged in occupation is 31.96%. Total no. of household in the area is 87379.

4.4 ENVIRONMENTAL MONITORING SCHEDULE

Details of the environmental monitoring schedule / frequency, which is being / will be undertaken for various environmental components, as per conditions of EC / CTE / CTO are given in Table below:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Description</th>
<th>Frequency of Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ambient Air Quality</td>
<td>Quarterly</td>
</tr>
<tr>
<td>2.</td>
<td>Stack Monitoring</td>
<td>Quarterly</td>
</tr>
<tr>
<td>3.</td>
<td>Effluent Water Quality</td>
<td>Daily</td>
</tr>
</tbody>
</table>

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M/s. Naini Paper Ltd.
4. Noise Level Monitoring  |  Half Yearly
5. Soil Quality        |  Yearly

5.0 ADDITIONAL STUDIES

As per the ToRs prescribed by MoEF, New Delhi, the following Additional Studies were carried out for the proposed expansion project:
1. Public Hearing
2. Hydro-geological Study and Rainwater Harvesting Plan
3. Traffic Study

6.0 PROJECT BENEFITS

Naini Papers Limited will generate a fair amount of direct and indirect employment in the study region. The local economy will receive a boost due to employee spending and services generated by the company. The overall effect will improve the buying power of employees and thus a higher standard of living viz. better education, improved health and sanitation facilities housing and acquisition of consumer durable. This is envisaged as a major positive benefit.

7.0 ENVIRONMENTAL MANAGEMENT PLAN

Following mitigation measures are being / will be adopted by NPL to minimize the impact of project on the surrounding environment:

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Quality Management</strong></td>
<td>Efficient air pollution control devices in existing boiler (Treema cyclone &amp; wet scrubber) to achieve stack norms prescribed by the Pollution Control Board.</td>
</tr>
<tr>
<td></td>
<td>To strengthen air quality control system, as a part of capacity enhancement, NPL will install ESP for the existing boilers.</td>
</tr>
<tr>
<td></td>
<td>Better maintenance of proper pollution control equipments helps in reducing emissions.</td>
</tr>
<tr>
<td></td>
<td>Roads within the plant premises are asphalted to control fugitive dust emissions due to transportation activities.</td>
</tr>
<tr>
<td></td>
<td>Periphery of plant and surrounding areas of office building has been covered by thick green belt which acts as a dust preventive barrier.</td>
</tr>
<tr>
<td></td>
<td>Ambient air quality and stack emissions are regularly monitored and effective controls exercised, so as to keep the emission within the statutory limits and same will be continued</td>
</tr>
<tr>
<td><strong>Water Management</strong></td>
<td>ETP treated effluent is used for gardening, floor cleaning, wet washing of raw materials, etc.</td>
</tr>
<tr>
<td></td>
<td>Treated Effluent is being/will be used in fire hydrant system instead of</td>
</tr>
</tbody>
</table>
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At 7th K.M. Stone, Moradabad Road, Kashipur, District Udham Singh Nagar, Uttarakhand– 244713.

**Draft EIA/EMP Report**

<table>
<thead>
<tr>
<th>Freshwater</th>
</tr>
</thead>
<tbody>
<tr>
<td>A soda recovery unit has been installed for processing of black liquor to valuable soda ash which is saleable to detergent &amp; glass industries.</td>
</tr>
<tr>
<td>Foul condensate from Soda recovery plant on ODL washer no. II for pulp washing.</td>
</tr>
<tr>
<td>Domestic waste water generated from the plant is being/ will be disposed off to soak pit via septic tank.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Noise Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to time oiling and servicing of machineries is being/will be done</td>
</tr>
<tr>
<td>Acoustic enclosures for D.G. sets are provided.</td>
</tr>
<tr>
<td>The green belt development helps in absorbing noise.</td>
</tr>
<tr>
<td>Earmuffs provided to workers while running the equipments of the plant.</td>
</tr>
<tr>
<td>Periodic monitoring is being/will be carried out.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solid &amp; Hazardous Waste Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETP sludge is collected on RCC Platform inside the premises.</td>
</tr>
<tr>
<td>Boiler ash is collected directly in trolleys &amp; shifted for filling for low lying area.</td>
</tr>
<tr>
<td>The Boiler ash is also taken by nearby farmers on request for use in fields as manure. The Ash can also be given to Brick manufacturers.</td>
</tr>
<tr>
<td>The generated traces of lime sludge from calcium hypochlorite preparation plant, is being mixed with cement &amp; mortar for repairing of building/plaster work.</td>
</tr>
<tr>
<td>No Hazardous waste is generated at the plant except 3 MTPA of waste oil, which is being/will be sold to recyclers authorized by CPCB.</td>
</tr>
<tr>
<td>Black Liquor is being sent to Soda recovery plant which can handle 220 TPD of Black liquor.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Green Belt Development / Plantation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out of the total plant area 19.62 hac (i.e. 48.5 acre), 6.47 hac (i.e. ~33%) has already been developed under green belt / plantation and the same will be maintained &amp; further enhanced.</td>
</tr>
<tr>
<td>Green belt is developed as per Central Pollution Control Board (CPCB) guidelines.</td>
</tr>
<tr>
<td>The Avenue plantation will give priority to native species, and the periphery is devoted to generation of green belt area.</td>
</tr>
<tr>
<td>Green belt development along the plant boundary attenuates noise level, arrest dust and improves the surrounding environment.</td>
</tr>
</tbody>
</table>

*Same practice will be followed after proposed capacity enhancement.*

### 8.0 CONCLUSION

As discussed, it is safe to say that the proposed capacity enhancement project is not likely to cause any significant impact on the ecology of the area, as adequate preventive measures will be adopted to contain the various pollutants within permissible limits. Green belt development around the area would also be taken up as an effective pollution mitigative technique, as well as to control the pollutants released from the premises of Naini Papers Limited.