| <b>Ouality Parameters</b> | and Norms of Refined | <b>Benzol Products :</b> |
|---------------------------|----------------------|--------------------------|
|                           |                      |                          |

| Parameters  | NG  | NG Toluene  | Xylene  | Solvent Oil   | Still Bottom  |
|---|---|---|---|---|---|
| Colour(0.8<br>ml/N/10K2Cr2O7<br>+12.0 ml N/10<br>COSO4 in 1000<br>ml DW) solution | Benzene<br>Not darker<br>than<br>specified  | Not darker than specified   | Not darker<br>than specified  | Not darker than<br>specified  | Oil<br>-  |
| Neutrality  | Not Acidic  | Not Acidic  | Not Acidic  | Not Acidic  | -   |
| Sp.Gravity  | 0.879 to<br>0.886 at<br>15°C  | 0.870 to 0.874<br>at 15°C   | 0.860 to 0.875<br>at 15°C   | 0.855(min) at<br>15°C   | 1.000 to<br>1.1000 at<br>ambient<br>temp.               |
| Distillation<br>Range   | Temp.diff.<br>between<br>1.0 &<br>96.0 %<br>distillate<br>v/v 0.60°C<br>max.<br>including<br>80.1°C | Temp.diff.<br>between 1.0 &<br>96.0%<br>distillate v/v<br>0.60°C max.<br>including<br>110.6°C | Temp.diff.<br>between 1.0<br>& 96.0%<br>distillate v/v<br>5.0°C max.<br>between<br>137.0 &<br>145.5°C | % Distillate at<br>the running<br>point of 190°C :<br>90.0 min. v/v | % Distillate<br>between<br>0& 160.0°C:<br>10.0 max. v/v |
| Residue on<br>evaporation<br>mg/100 ml<br>(max.)                                  | 5.0   | 5.0   | 10.0  | -   | -   |
| % Total<br>Sulphur (w/w)<br>(max.)  | 0.010   | 0.010   | -   | -   | -   |
| Hydrogen<br>Sulphide and<br>Mercaptans  | -   | To pass the<br>test   | To pass the test  | To pass the test  | -   |
| Acid Wash Test<br>(max.)  | 0.3   | 0.3   | -   | -   | -   |
| Solidification<br>Point (min)(°C)   | 5.3   | -   | -   | -   | -   |
| Copper<br>Corrosion   | To pass<br>the test   | -   | -   | -   | -   |
| Moisture (%)  | -   | -   | -   | -   | 10.0(max.)  |

## **Quality Parameters and Norms of Oils:**

| Material              | Sp.Gravity/<br>Tempera-<br>true                      | Moisture<br>%<br>(W/W) | Distillation range and %<br>distillate(w/w)                                     | %<br>Naphthalene<br>(w/w) | % Libe<br>rated<br>Phenol<br>(v/v) | %Free<br>Alkali<br>(w/v) |
|-----------------------|--|------------------------|---|---------------------------|------------------------------------|--------------------------|
| Anthracene<br>Oil     | 1.100(min<br>) at 27°C                               | 2.0(max)               | 0 to 300°C : 5.0(min)<br>300-360°C : 40.0(min)                                  | -                         | -                                  | -                        |
| Heavy<br>Creosote oil | 1.030 to<br>1.100 at<br>38°C                         | 2.0(max)               | 0 to 210°C : 5.0(max)<br>0 to 235°C :<br>30.0(max)<br>0 to 315°C :<br>75.0(max) | -                         | -                                  | -                        |
| Light<br>Creosote oil | 1.035 to<br>1.080 at<br>30°C                         | 2.0(max)               | 220-350°C : 85.0(min)   | -                         | -                                  | -                        |
| Coal Tar<br>Wash oil  | 1.040 to<br>1.080 at<br>30°C                         | 2.0(max)               | 0-230°C :<br>20.0(max)<br>230-300°C : 70.0(min)                                 | -                         | -                                  | -                        |
| Drained<br>Naph. Oil  | 1.000 at<br>60.0°C(mi<br>n)                          | 4.0(max)               | 0 to 270°C : 80.0(min)  | 20.0(min)                 | -                                  | -                        |
| De-phenolised<br>oil  | 1.000 at<br>60.0°C(mi<br>n)                          | 4.0(max)               | 0 to 270°C : 80.0(min)  | 20.0(min)                 | -                                  | -                        |
| Heavy Benzol          | 0.950 at<br>38°C(min)                                | 4.0(max                | 0 to 270°C : 80.0(min)  | 20.0(min)                 | -                                  | -                        |
| Sodium<br>Phenolate   | Sp.Gravit<br>y at<br>ambient<br>temp. as<br>analyzed | -                      | -   | -                         | 16.0<br>(min)                      | 2.0<br>(max)             |
| Light Oil             | 0.880-<br>0.980 at<br>30°C                           | 4.0(max)               |   | -                         | -                                  | -                        |

## AMMONIUM SULPHATE

The Nitrogen content in Ammonium Sulphate shall be 20.6 %( w/w) (min.)

| Crystallization Temp. | : 78.5°C (Min.)             |
|-----------------------|-----------------------------|
| Moisture              | : 0.50 %( Max.)             |
| Ash Content           | : 0.20 % ( Max.)            |
| Colour                | : Off White to Light Brown. |

## **Quality Parameters & Norms of Pitch**

| SL.No. | Parameters                                    | Norm              |
|--------|---|-------------------|
| 1.     | Softening Point(°C)                           | 93.0 - 107.0      |
| 2.     | % Moisture (only in case of granulated pitch) | <b>2.0(max.)</b>  |
| 3.     | % Toluene Insoluble                           | 20.0 - 30.0       |
| 4.     | % Quinolene Insoluble                         | 5.5 – 14.0        |
| 5.     | % Beta Resin                                  | <b>14.0</b> (min) |
| 6.     | % Ash   | <b>0.5</b> (max.) |
| 7.     | % Coking Value                                | 49.0 - 54.0       |

## LIST OF MATERIALS DESPATCHED ON NO COMPLAINT BASIS

- (a) Tar Sludge
- (c) Tarry Sludge
- (e) Crude Coal Tar
- (g) Flushed out naphthalene
- (i) Pitch Creosote mixture (PCM)
- (k) Spent solvent oil type II

- (b) Polymer
- (d) Spillage Naphthalene
- (f) Steamed-out Naphthalene
- (h) Light crude benzol
- (j) Spent solvent oil type I
- (l) Skimmed oil

The basis of dispatch of the above materials is "As is and where is". However for Naphthalene bearing materials the following quality parameters are tested (i)Moisture (ii)% Distillate : 0-270°C (ii)% Naphthalene

In case of crude coal tar (CCT) BSP has a practice of dispatching CCT having 0-5% moisture. In case of the same being more than 5%, Party's consent is taken and for beyond 10.0% of moisture in CCT, tanker is unloaded.

In case of Tarry Sludge, %Naphthalene shall not be more than 12%.

In case of Flushed out Naphthalene, % Naphthalene shall be >12% but not more than 40%.

| In case of Light crude benzol |   |                                  |
|-------------------------------|---|----------------------------------|
| (A) Specific Gravity at 15 °C | : | 0.870 to 0.890                   |
| (B)Moisture                   | : | 1.0% (max.)                      |
| (C)Distillation Range         | : | Drop Point 72 °C (min.)          |
|                               |   | Recovery up to 165 °C 95 % (min) |

In case of PCM, Moisture shall not be more than 2 %.