6.6 SULPHUR (NATIVE)

Introduction

Sulphur is an essential raw material for many chemical industries and is essentially used for the production of sulphuric acid which in turn is used for the production of chemical fertilizers, textiles, dyestuffs, pickling and galvanising of steel, storage batteries, refining of petroleum, explosives and other acids. Sulphur is used as vulcanising agent, for the production of sulphur dioxide used in paper industry, for refining sugar in sugar industry and in bleaching industry for the manufacture of carbon disulphide which are used for manufacturing rayon. It is also used as a fumigant for stored grain and as a pesticide, etc.

Commercial deposits of native sulphur occur either in salt domes or in bedded deposits associated with gypsum, limestone or as surface deposits associated with some phase of volcanism.

Native sulphur deposit has been reported in Puga Valley of Leh district in Jammu & Kashmir. The grade of the deposit ranges from 9% to 24% of sulphur. Small occurrences of native sulphur are also reported from Barran Island of Bay of Bengal. Sulphur along with hot springs were reported from various parts of Chamoli, Rudraprayag, Uttarkashi, etc. districts in Garhwal & Kummon divisions of Uttarakhand. In Andhra Pradesh, native sulphur occurs in granular form with clay and silt in coastal areas of Krishna and East Godavari districts. Occurrences are also reported from Alleppy district of Kerala and Kangra district of Himachal Pradesh.

Basis of Grade Classification

There are no BIS specifications of sulphur for use in industries. The available resources in the inventory have been classified as 'Sulphur (Native)'.

Basis of Categorisation of Resources

As per United Nations Framework Classification (UNFC), the resources are broadly classified into 'reserves' and 'remaining resources'. According to the norms of this system, the entire resources of sulphur have been placed under inferred (333) category of remaining resources.

Salient Features of the Inventory

The total resources of sulphur (native) in the country as on 1.4.2015 have been estimated at 210 thousand tonnes. There are no mineable reserves of elemental sulphur in the country. The entire estimation has been made in freehold areas and has been placed under inferred category of remaining resources.

All India scenario of sulphur reserves, remaining resources and total resources as on 1.4.2015 vis-a-vis 1.4.2010 have been given in Tables - 1 and 2. The tables give an idea about the significant changes in terms of increase or decrease of resources as per lease status, grade, and state. In Table-3, district wise reserves/resources as on 1.4.2015 have been given.

These resources of native sulphur have been estimated from a single deposit in Puga valley of Leh district in Jammu & Kashmir.

There is no change in the inventory as on 1.4.2015 as compared to earlier inventory as on 1.4.2010.

A total 02 freehold deposits of sulphur (Native) have been covered in the National Mineral Inventory as on 1.4.2015. Out of which resources have been estimated in one deposit only.

Table – 2 : Total Resources of Sulphur (Native) as on 1.4.2015 (P) vis-à-vis 1.4.2010 (By States)

<table>
<thead>
<tr>
<th>State</th>
<th>Total resources</th>
<th>Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>As on 1.4.2015</td>
<td>As on 1.4.2010</td>
</tr>
<tr>
<td>All India / Jammu &amp; Kashmir</td>
<td>210</td>
<td>210</td>
</tr>
</tbody>
</table>

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### Table - 1: Reserves/Resources of Sulphur (Native) as on 1.4.2015 (P) vis-à-vis 1.4.2010
(By Lease Status/Grade)

<table>
<thead>
<tr>
<th>Lease status/Grade</th>
<th>1.4.2015 Reserves</th>
<th>1.4.2010 Net change</th>
<th>Remaining resources</th>
<th>1.4.2015 Net change</th>
<th>Total resources</th>
<th>1.4.2015 Net change</th>
</tr>
</thead>
<tbody>
<tr>
<td>All India/Freehold</td>
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<td>-</td>
<td>210</td>
<td>210</td>
<td>No change</td>
<td>210</td>
</tr>
<tr>
<td>Sulphur(Native)</td>
<td>-</td>
<td>-</td>
<td>210</td>
<td>210</td>
<td>No change</td>
<td>210</td>
</tr>
</tbody>
</table>

*Figures rounded off.*