

NATIONAL MINERAL DEVELOPMENT CORPN. LTD.

A

v.

STATE OF M.P. AND ANR.

MAY 5, 2004

[R.C. LAHOTI AND ASHOK BHAN, JJ.]

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Mines & Minerals (Regulation and Development) Act, 1957, Section 9 and Entry 23 of the Second Schedule—Slimes arising in extraction of iron-ore—Levy of Royalty—Validity of—Held : Slimes being a waste material consisting of impurities having no commercial value, it is different from fines and concentrates—Entry 23 of the Second Schedule prescribes quantification and levy only with reference to the quantity of lumps, fines and concentrates and slimes is left out of consideration for the purpose—Hence, levy of royalty on slimes by the State authorities not valid.

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Appellant had been holding mining leases over land for extracting iron ore. In the process of mining, the iron ore is extracted and separated into ore lumps, fines and waste material known as 'slimes'. Appellant challenged the action of State authorities in levying royalty on slimes. High Court held 'slimes' exigible to charge of royalty.

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In appeal to this court, appellant contended that slime is the resultant waste material consisting of impurities and minute particles with ferrous content, the ferrous part of which can neither be retrieved nor utilized for production of iron/steel as no technology for the said purpose is yet developed; that no other State in the country is collecting royalty on slimes; that such action of the State is arbitrary and unreasonable as slimes are nothing but impurities left available to be discarded at the end of the process of production of iron-ore lumps and iron-ore fine and that in view of the provisions contained in Section 9 of Mines & Minerals (Regulation and Development) Act, 1957 and Entry 23 of the Second Schedule thereof, the State cannot levy royalty on slimes and hence the action of the State is liable to be struck down.

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Respondent contended that slimes contain ferrous material, nearly in the same proportion as the lumps or the fines contain, hence on a

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- A reasonable interpretation of Entry 23, the “slimes” should be treated as included in the “fines” and that merely because slimes cannot be usefully utilized for the purpose of extracting out the ferrous contents thereof and have no commercial value, cannot be a ground for exempting them from payment of royalty when the Parliament itself has chosen not to exclude slimes from charge of royalty.

Allowing the appeals, the Court

Held : 1. The slime, including its ferrous contents, is a waste with no commercial value as it can neither be used nor consumed and there are no takers of the same in business, commerce and industry. It is different from ‘fines’ and concentrates, hence not exigible to charge of royalty under section 9(1) r/w Entry 23 of Second Schedule of the Mines & Minerals (Regulation & Development) Act, 1957. [15-D; 22-E]

2.1. The royalty is to be quantified for the purpose of levy and that cannot be done unless the provisions of the Second Schedule of the Act are taken into consideration. For the purpose of levying any charge, not only the charge has to be authorized by law, it has also to be computed. The charging provision and the computation provision may be found at one place or at two different places depending on the draftsman’s art of drafting and methodology employed. In the latter case, the charging provision and the computation provision, though placed in two parts of the enactment, shall have to be read together as constituting one integrated provision. Section 9 provides for levy of royalty and does not prescribe the rate of royalty nor does it lay down how the royalty shall be computed. The rate of royalty and its computation methodology are found in Entry 23 of the Second Schedule and therefore the reading of Section 9 which authorizes charging of royalty cannot be complete unless what is specified in the Second Schedule is also read as part and parcel of Section 9. Entry 23 mandates the quantification of royalty to await or be postponed until the processing has been carried out and the lumps, fines and concentrates are prepared. Once the result of processing is available, the lumps, fines and the concentrates are subjected to levy of royalty at different rates applied by reference to the quantity of each of the three items

earned as a result of processing. The slimes have been left out of A
consideration by entry 23 for the purpose of quantification and levy.
[16-A-C, E, F; 17-B, C]

2.2. Parliament made provision for the quantification of lumps, B
fines and concentrates. Having done so the Parliament has not said -
“fines including slimes”. Though ‘slimes’ are not ‘fines’, the Parliament
could have assigned an artificial or extended meaning to ‘fines’ for the
purpose of levy of royalty, which it has chosen not to do. It is clearly
suggestive of its intention not to take into consideration ‘slimes’ for
quantifying the amount of royalty. This deliberate omission of C
Parliament cannot be made good by interpretative process so as to
charge royalty on ‘slimes’ by reading Section 9 of the Act divorced
from the provisions of the Second Schedule. Even if slimes were to be
held liable to charge of royalty, the question would still have remained
at what rate and on what quantity which questions cannot be answered D
by Section 9. The High Court is, therefore, not right in holding that
slimes are part of fines and hence liable to be included in Clause (ii)
of Entry 23 for the purpose of charging royalty. In the mining circles,
fines and slimes both have different meanings and understood as two
different objects. [18-H, 18-A-C; 17-D]

State of Orissa v. Steel Authority of India Ltd., [1998] 6 SCC 476,
distinguished. E

CIVIL APPELLATE JURISDICTION : Civil Appeal Nos. 7880-
7883 of 2001. F

From the Judgment and Order dated 25.2.99 of the Madhya Pradesh
High Court in W.P. Nos. 487-490 of 1998.

Mukul Rohtagi, Additional Solicitor General, K. Raghavacharyulu, G
P.S. Narasimha, Potaraju Sridhar, Saurabh Kirpal, Ananga Bhattacharya,
G. Seshagiri Rao, V.G. Pragasam, S.K. Agnihotri, Rohit K. Singh, Prakash
Srivastava, for the appearing parties.

The Judgment of the Court was delivered by H

A **R.C. LAHOTI, J. :** The High Court of Madhya Pradesh has by its impugned judgment held 'slimes' exigible to charge of royalty, as forming part and parcel of iron ore. Feeling aggrieved, the mining lessee i.e. the appellant herein has come up in appeals by special leave to this Court. All the appeals raise a common issue for decision.

B National Mineral Development Corpn. Ltd. ('NMDC', for short) is a public sector company engaged in exploring and development of iron ore deposits in India. It holds mining leases over land admeasuring more than 600 hectares from the State of Madhya Pradesh for extracting iron ore. In the present case we are concerned with the iron ore project of NMDC
C situated in Bailadila, District Bastar of Madhya Pradesh, which now stands allocated to the State of Chhattisgarh consequent upon reorganization of the State of Madhya Pradesh w.e.f. 01.11.2000. The State of Chhattisgarh has been joined as a party-respondent in these appeals.

D The mining leases held by the appellant are governed by the provisions of the Mines and Minerals (Regulation and Development) Act, 1957 hereinafter 'the Act', for short. Section 9 of the Act which makes provision for levy of royalty and Entry 23, in the Second Schedule of the Act which makes provision for the rates and quantification of royalty, are
E relevant and hence extracted and reproduced hereunder:

"9. Royalties in respect of mining leases.

(1) The holder of a mining lease granted before the
F commencement of this Act shall, notwithstanding anything contained in the instrument of lease or in any law in force at such commencement, pay royalty in respect of any mineral removed or consumed by him or by his agent, manager, employee, contractor or sub-lessee from the leased area after such commencement, at the rate for the time being
G specified in the Second Schedule in respect of that mineral.

(2) The holder of a mining lease granted on or after the
H commencement of this Act shall pay royalty in respect of any mineral removed or consumed by him or by his agent, manager, employee, contractor or sub-lessee from the leased

area at the rate for the time being specified in the Second Schedule in respect of that mineral. A

(2A) The holder of a mining lease, whether granted before or after the commencement of the Mines and Minerals (Regulation and Development) Amendment Act, 1972, shall not be liable to pay any royalty in respect of any coal consumed by a workman engaged in a colliery provided that such consumption by the workman does not exceed one-third of a tonne per month. B

(3) The Central Government may, by notification in the Official Gazette, amend the Second Schedule so as to enhance or reduce the rate at which royalty shall be payable in respect of any mineral with effect from such date as may be specified in the notification: C

Provided that the Central Government shall not enhance the rate of royalty in respect of any mineral more than once during any period of three years." D

THE SECOND SCHEDULE
RATES OF ROYALTY E

"23. *Iron Ore* :

- (i) *Lumps*
- | | | | | |
|-----|---|---|--|---|
| (a) | With 65 per cent Fe content or more. | : | Twenty-four rupees and fifty paise per tonne | F |
| (b) | With 62 per cent Fe content or more but less than 65 per cent Fe | : | Fourteen rupees and fifty paise per tonne. | G |
| (c) | With 60 per cent Fe content or more but less than 62 per cent Fe. | : | Ten Rupees per tonne. | |
| (d) | Less than 60 per cent Fe content. | : | Seven rupees per tonne. | H |

A (ii)

Fines

(including *inter alia* natural fines produced incidental to mining and sizing of lumpy ore)

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(a) With 65 per cent Fe content or more. : Seventeen rupees per tonne.

(b) With 62 per cent Fe content or more but less than 65 per cent Fe. : Ten rupees per tonne.

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(c) With less than 62 per cent Fe content. : Seven rupees per tonne.

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(iii) Concentrates prepared by beneficiation and/or concentration of low grade ore containing 40 per cent Fe or less. : Three rupees per tonne.

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Iron ore deposits occur mostly in the hill ranges and iron ore is found on the top of the hill i.e. on the surface. The process by which the mineral is won, has been described by the appellant as under:

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“The ore is extracted by open cast method of mining for which mining benches are prepared. Firstly, holes are drilled on the benches covering entire height of the bench at regular distance depending on ore types. After charging of the holes with explosives this portion of the bench is blasted. The blasted material known as ROM (Run of Mines) consists of large boulders, fragments and fines along with other contaminants ROM is transported to Crushing plant by dumpers and crushed to below 150 mm sizes.

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This crushed ROM contains Lump, Fines and also contaminants such as Alumina and Silica. The crushed ore is transported to Screening Plant through conveyer belts and is washed with water and screened in vibrating screens. Vibrating screens segregates ore into different sizes such as Lump, Calibrated Ore and Fines.

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Some times, the ore need not be washed as the percentage of

contamination is within the acceptable limits. In such cases, Run of Mine ore screened by dry screening i.e. without resorting to washing by water. It is not possible to continuously resort to dry, screening because quality of ore which does not need washing occur mostly in patches. Also during monsoon, the ore becomes moist due to which dry screening is not possible and washing by water is necessary in screening. During the processing of screening the ore is sorted into various sizes i.e. Lump; Calibrated Lump Ore and Fines and the washed water, which contains mostly the contaminants and also a part of the ROM, is diverted to and impounded in a Tailing Pond. The ore particles are mostly less than 100 mesh (0.15 mm)"

"Iron ore is blasted from the hillocks and the blasted material is brought in as boulder, fragment, fines and other extraneous materials in small pieces and transported by dumpers to the crushing plants. The big boulders are crushed into 150 mm size and transferred to the screening plant, where water is pumped for pollution control, beneficiation and segregation of different fragments i.e. lump and fine. In the said process, lump and fines are segregated and through conveyor system transported to loading yard. Waste materials and extraneous materials like mud and shale which form the slurry is transported through pipeline to tailing dam where the whole material gets deposited and extra water flown out."

The above process is such as has been described by the appellant. The correctness of the description has not been disputed by the respondents. The High Court has also upheld the process to be such as described by the appellant and proceeded to construct its judgment based thereon. The correctness of the above description is not disputed before us too.

The submission of the appellant is that in the process of mining, the iron ore is extracted and separated into ore lumps, fines and waste material which is generally referred to and known as "slime". "Slime" is not iron ore within the meaning of the provisions of the Act and the Second Schedule. It has no utility, much less as a mineral. It is only dumped. The slime is the resultant waste material from the wet screening process

A undertaken for segregation of lumps and fines. Slimes consist of impurities and minute particles with ferrous content but the ferrous part can neither be retrieved nor utilized for production of iron/steel as no technology for the said purpose is yet developed. Therefore, till today, it is submitted on behalf of the appellant, no other State in the country is collecting royalty on slimes. It is only the State of Madhya Pradesh which has initiated the process of seeking to levy royalty on slimes. Such action of the State is arbitrary and unreasonable as slimes are nothing but impurities left available to be discarded at the end of the process of production of iron ore lumps and iron ore fines. In view of the provisions contained in Section 9 and Entry 23 of the Second Schedule, both read together, the State cannot claim to levy royalty on slimes and hence the action of the State is liable to be struck down.

D The plea of the respondents which has found favour with the High Court is that the royalty is payable on the mineral as extracted and removed or consumed from the leased area by the mining lessee. The slimes are produced from the iron ore as extracted and removed from the leased area. Inasmuch as the slimes do contain ferrous material, nearly in the same proportion as the lumps/or the fines contain, on a reasonable interpretation of Entry 23, the "slimes" should be treated as included in the "fines".

E Merely because the slimes cannot be usefully utilized for the purpose of extracting out the ferrous contents thereof and have no commercial value and have, therefore, to be dumped as waste, it cannot be a ground for exempting them from payment of royalty when the Parliament itself has chosen not to exclude slimes from charge of royalty.

F There is yet another finding recorded by the High Court for which purpose the High Court has relied on *State of Orissa v. Steel Authority of India Ltd.*, [1998] 6 SCC 476 wherein this Court has observed that processing of any mineral extract and subjecting it to a certain process to remove waste and foreign materials amounts to consumption and therefore the lessee becomes liable to pay royalty on the entire mineral extracted by him and not merely on the net quantity of mineral obtained after processing. The High Court has held that the entire quantity of ROM, as extracted from the earth shall be liable to payment of royalty.

H A few questions arise for consideration : (i) What is 'slime' or

'slimes' as understood in mining industry and trade?, (ii) Whether 'slimes' is included in 'fines' or 'concentrates', within the meaning of Entry 23 of the Second Schedule, for the purpose of charging royalty? We proceed to answer the questions. A

In order to understand and appreciate the legislative scheme behind enactment of Section 9 and Entry 23 of the Second Schedule dealing with iron ore, it is necessary to understand a few relevant facts relating to iron production and that we propose to do by borrowing from Encyclopaedia Britannica. B

Iron production : Iron is the most useful of the metallic elements and the second most abundant in the Earth's crust, after aluminium. In its elemental form or as steel, iron has supplied civilization with most of its tools and machinery, many of its products, and the bulk of its structural elements in large-scale construction. C

Mining and preparation for processing : *Common ores* — The most common compounds from which iron is produced are oxides, carbonates, and sulfides. D

(See Encyclopaedia Britannica, Vol. 21, 15th Edition, at pp. 360 — 361). E

It is further stated :

"Mining techniques. A substantial amount of iron ore is recovered by surface methods, usually known in metal mining as open-pit or opencut. For deeper lying deposits in which the ore and wall rocks are firm, open stopes—a series of descending steps—are cut; in cases of small deposits, the entire ore body may be removed from wall to wall without leaving any pillars. Where the ore body lies buried in rock, deep underground, shaft mining is employed; the vertical shaft may go down several thousand feet. Horizontal tunnels from the shaft follow the ore deposits as they are mined, with locomotives and cars on tracks used to move the ore to the shaft elevators. F

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A Ore with a low sulfur content are more suitable for smelting. Formerly, only ores containing more than 30 percent iron could be smelted profitably, but because of various upgrading processes lower grade ores can now be used. The value of an ore deposit depends on geographic location and accessibility.

B *Upgrading ores (beneficiation).* As the high-grade deposits became more inaccessible or exhausted and as shipping costs increased, it became necessary to separate and discard unusable materials from the iron ores at, or near, the mines. Processes broadly termed

C beneficiation were developed to upgrade the ore before shipment. Concentration or other preparation of ores is accomplished by leaching and drying, flotation, agglomeration, or magnetic separation. Flotation is an ore-dressing process by which finely

D pulverized ore is agitated in a mixture of oil and water. Constituent minerals are separated from one another by virtue of their respective abilities to be wetted by water and by their specific gravities.”

It will also be apposite to precisely understand a few scientific and technical terms which are of relevance for the issue at hand. Chamber’s

E Science and Technology Dictionary defines the following terms as under:

F “ ‘Iron Ores’ (*Geol.*). Rocks or deposits containing iron-rich compounds in workable amounts; they may be primary or secondary; they may occur as irregular masses, as lodes or veins, or interbedded with sedimentary strata.

‘Fines’ (*Powder Tech.*). That portion of a powder composed of particles under a specified size.

G ‘Slimes’ (*Min.Ext.*). Particles of crushed ore which are of such a size that they settle very slowly in water and through a bed which water does not readily percolate. Such particles must be leached by agitation. By convention these particles are regarded as less than 1/400 in (0.0635 mm) in diameter (mesh number 200). *Primary slimes* are naturally weathered ore, or associated clays. *Secondary slimes* are produced during comminution.”

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'Concentrate' (*Min.Ext.*). The products of concentration operations in which a relatively high content of mineral has been obtained and which are ready for treatment by chemical methods. **A**

'Concentrate plant' (*Min.Ext.*). Concentrator mill, reduction works, washing, cleaning plant. Buildings and installations in which ore is processed by physical, chemical and/or electrical methods to retain its valuable constituents and discard as tailings those of no commercial interest. **B**

A few definitions from Dictionaries Of Mining Terms by Paul W. Thrush and the Staff of the Bureau of Mines (1968, reprint 1990) deserve to be quoted: **C**

Concentrate. a. In mining, the product of concentration. Used in plural form as "arrangements for treating the concentrates were complete." Concentrates are called ore at Joplin, Mo.; mineral at Michigan copper mines; and tailings in Black Hawk, Colo. Fay. b. In mining, to separate ore or metal from its containing rock or earth. The concentration of ores always proceeds by steps or stages. Thus the ore must be crushed before the mineral can be separated, and certain preliminary steps, such as sizing and classifying, must precede the final operations, which produce the finished concentrates. *Ricketts*, I. c. Can. Enriched ore after removal of waste in beneficiation mill. *Hoffman*. d. The clean product recovered in froth flotation. *B.S. 3552, 1962*. e. To intensify in strength or to purify by the removal of valueless or unneeded constituents; condense; intensify. *Standard, 1964*. **D**
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Tailings. (tailings is defined *inter alia* as) Those portions of washed ore that are regarded as too poor to be treated further; used especially of the debris from stamp mills or other ore-dressing machinery, as distinguished from material (concentrates) that is to be smelted. *Standard, 1964*. d. The inferior leavings or residue of any product; foots, bottoms. In mining the residuum after most of the valuable ore has been extracted. *Fay*. e. The term tailings has been construed as including slag. **Fay**. f. The term tailings **H**

A as used in the mineral industry is used in the plural form. *Fay*.
g. Also applied to sectional residue, for example, table tailings,
which is the residue from shaking screens and tables. This
materials may be recrushed or retreated. *Nelson*. h. The waste rock
after the asbestos fiber has been removed. *Mersereau, 4th, p. 210*.

B *Tailings dam*. One to which slurry is transported, the solids
settling while the liquid may be withdrawn. *Pryor, 3, p.122. 1).*

C *Slime; slimes*. a. A material of extremely fine particle size
encountered in ore treatment. *ASG Gloss*. b. A mixture of metals
and some insoluble compounds that forms on the anode in
electrolysis. *ASM Gloss*. c. A product of wet grinding containing
valuable ore in particles so fine, as to be carried in suspension by
water; chiefly used in the plural. *Webster 3d*. d. In metallurgy, ore
reduced to a very fine powder and held in suspension in water so

D as to form a kind of thin ore mud; generally used in the plural.
Fay. e. A mudlike substance formed of ore in an almost
impalpable powder, mixed with water; usually plural. *Standard,*
1964. f. Primary slimes are extremely fine particles derived from

E ore, associated rock, clay, or altered rock. They are usually
found in old dumps and in ore deposits which have been
exposed to climatic action; they include clay, alumina, hydrated
iron, near colloidal common earths and weathered feldspars.
Secondary slimes are very finely ground minerals from the true
ore. *Pryor, 2*.

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Glossary of Geology edited by Robert L. Bates and Julia A. Jackson
(Second Edition) defines 'tailings' as those portions of washed or milled
ore that are regarded as too poor to be treated further, as distinguished from
the *concentrates*, or material of value.

G According to Handbook of Mineral Dressing by Arthern & Taggart
(at p.15.04), "Slime" is the term used in milling practice to describe a
suspension, in water of the fully divided fraction of pulverized ore; also
the solid, whether suspended or after settling out to drying. The terminology

H is not precise e.g. the overflow of a mechanical classifier or guarding the

discharge of a grinding mill may be called SLIME as distinguished from the coarser sand, even though the separation be made at upward of 0.5 mm size; the over of a hydraulic classifier is called slime, more or less irrespective of the size of grains. Some writers (41 A S 98, 42 A 752) define slime as crushed rock in water when rock is of such fineness that it will pass a 150-or 200 m. (0.1- to 0.075-mm) screen. The solid particles in mill slimes are rock or mineral fragments formed by operations, and secondary minerals such as steatite, talc, and clayey substances that have been disintegrated and dispersed by wetting. These latter substances are often called as SLIMES.

To ascertain the meaning of slime, the High Court has, in its impugned judgment, relied upon two references;

“Slime is the term used in milling practice to describe a suspension in water of the far divided fraction of pulverized ore; also the solid, whether suspended or after settling and drying. The terminology is not precise, e.g., the overflow of a mechanical classifier or for guarding the discharge of a grinding mill may be called SLIME as distinguished from the coarser sand, even though the separation be made at upward of 0.5 mm size, the ore of a hydraulic classifier is called slime, more or less irrespective of the size of the coarse grains.” (Hand Book of Mineral Dressing by Arthen F. Taggart)

“Slimes refer strictly to the colloidal and semi-colloidal portion of the pulp; but in practice they are usually considered as being they are usually considered as being the portion that is composed largely of particles that will pass a 200 mesh screen. They can be treated by cyanide solution in agitation tanks, followed by separation of the metal-bearing solutions from the solids by settling and filtration.” (Mining Engineers’ Hand Book by Roberl Peeli, Vol.II)

From the abovesaid definitions as available in two reference books, the High Court has concluded that “slime is nothing but powdery form of iron ore and it contains small grains of ferrous.” A little after we will test the impact of the inference so drawn.

A Reference may also be made to Monograph on Iron Ore (Revised Edition, 1997) brought out by Indian Bureau of Mines, Ministry of Mines, Nagpur. Dealing with Bailadila Iron Ore Mines it is stated (at p.163):

B “For disposal of waste dump, sites are selected considering topography of the area in order to restrict the flow of materials into natural water course, and for this purpose, areas where closed valleys and/or blind angles exist, have been proposed with the provisions of rock toes. Flat tops and inward slope area, construction of small terraces with peripheral bands for dumps and their stabilization by planting agave, shrubs, grasses and fast growing trees on terraces are the important measures to be taken up for environment-friendly disposal of waste.”

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D The Monograph deals with the processes adopted in India by reference to different mining areas in gaining iron from ROM (Run of Mine) also known as feed. The flow-sheet of Bailadila iron ore project of NMDC in Dist. Bastar (M.P.) (now Chhattisgarh) reveals that the feed (ROM) has 67.5 to 68.7% ferrous, lumps have 67.5 - 68.9% ferrous, fines have 65.2 - 69.0% ferrous, slimes have 67.0 - 68.8% ferrous.

E In the Monograph there are eight flow sheets given showing how in different iron ore projects Run of Mine (ROM) is processed and undergoes the process of crushing, screening, classification and what is left to be consigned to the tail pond which becomes ‘slimes’. In Bailadila Iron Ore Project, with which we are concerned, ROM is fed into gyratory crusher
F and then having passed through several stages the lumps are formed. Then there is spiral classifier and dewatering screening. Fine ore is segregated. The slimes are then consigned to the tail pond. Similar, processes are to be found, with suitable and required technical modifications, in Bailadila (Karnataka), Keonjar (Orissa) and several other projects. One common
G feature in all the projects is that after the fines have been recovered and washed the slimes are consigned to tailing ponds. The tail end products do have certain percentage of ferrous contents but then such contents are part of slag or slurry. In the tailing pond all the impurities settle down and clean water overflows which does not cause any pollution or detriment to
H environment.

It was submitted on behalf of the appellant that the slimes generated due to washing operations done in screening plants are conveyed to the tailing dam for quiescent settling. Only clear water is allowed to pass through the wiremesh at the tailing dams. Thus the only water pollutant i.e. suspended solids in the form of lateritic soil and some iron ore micro-fines are retained at the upstream whereby avoiding water pollution in the natural water course. In the submission of the appellant, the iron ore slimes have been treated as waste product though it contains iron content in the range of 45-50% because it is not usable by any of the existing technologies. Suitable technologies are still being explored and examined for converting these iron ore slimes into value added products.

The submission is not refuted by the respondents that although efforts are being made to win ferrous material from the slimes by innovating scientific and technological methods, the achievements made till this date do not make the process commercially viable inasmuch as the cost incurred in winning ferrous material from slimes is prohibitive; the cost incurred exceeds the value of the ferrous so won, out of all proportion. Thus whatever may be the future, as on the day, the slime, including its ferrous contents, is just a waste with no commercial value *as it can neither be used nor consumed* and there are no takers of the same in business, commerce and industry.

There can be no manner of doubt that the entire material extracted from the earth, so far as iron ore mines are concerned, has to be subjected to a process for the purpose of wining iron therefrom. The process results into (i) lumps, (ii) fines and (iii) slimes. Section 9 of the Act obliges the holder of a mining lease to pay royalty in respect of any mineral *removed or consumed* from the leased area. If only it would have been the question of considering Section 9 and determining the impact thereof, may be it is the total quantity of mineral *removed* from the leased area or *consumed* in the beneficiation process which would have been liable for payment of royalty and that quantity may have included the quantity of slimes as well, as was held by this Court in *State of Orissa v. Steel Authority of India Ltd.* (supra). But in case of iron ore the process of beneficiation involves introduction of catalytic agents leading to separation and generation of waste consisting of impurities which the scheme of the Act has left out from charging.

A Section 9 is not the beginning and end of the levy of royalty. The royalty has to be quantified for purpose of levy and that cannot be done unless the provisions of the Second Schedule are taken into consideration. For the purpose of levying any charge, not only the charge has to be authorized by law, it has also to be computed. The charging provision and the computation provision may be found at one place or at two different places depending on the draftsman's art of drafting and methodology employed. In the latter case, the charging provision and the computation provision, though placed in two parts of the enactment, shall have to be read together as constituting one integrated provision. The charging provision and the computation provision do differ qualitatively. In case of conflict, the computation provision shall give way to the charging provision. In case of doubt or ambiguity the computing provision shall be so interpreted as to act in aid of charging provision. If the two can be read together homogenously then both shall be given effect to, more so, when it is clear from the computation provision that it is meant to supplement the charging provision and is, on its own, a substantive provision in the sense that but for the computation provision the charging provision alone would not work. The computing provision cannot be treated as mere surplusage or of no significance; what necessarily flows therefrom shall also have to be given effect to.

E Applying the abovestated principle, it is clear that Section 9 neither prescribes the rate of royalty nor does it lay down how the royalty shall be computed. The rate of royalty and its computation methodology are to be found in the Second Schedule and therefore the reading of Section 9 which authorizes charging of royalty cannot be complete unless what is specified in the Second Schedule is also read as part and parcel of Section 9.

G A bare reading of Entry 23 reveals that the Parliament has not chosen to compute royalty on iron ore by itself and quantifiable as run of mine (ROM). The Parliament is conscious of the fact that iron ore shall have to be subjected to processing whereafter it would yield (i) lumps, (ii) fines, (iii) concentrates, and (iv) slimes—the last one to be found deposited in the tailing pond. The Parliament has to be attributed with the knowledge that keeping in view the advancements in the field of science and technology as on the day, the slimes do not have any commercial value.

While carrying out prospecting operations it is known what will be the strength of the iron ore (i.e. the percentage of ferrous content) available in a particular area. By reference to such strength or quality of iron ore, the rate of royalty could have been made available for calculation based on the quantity of the iron ore as run of mine and quantifiable on per tonne of iron ore, that is, tonnage of iron ore as such. Parliament has chosen not to do so. Entry 23, the manner in which it has been drafted, mandates the quantification of royalty to await or be postponed until the processing has been carried out and the lumps, fines and concentrates are prepared. Once the result of processing is available, the lumps, fines and the concentrates are subjected to levy of royalty at different rates applied by reference to the quantity of each of the three items earned as a result of processing. The slimes have been left out of consideration by Entry 23 for the purpose of quantification and levy.

The High Court is, therefore, not right in forming an opinion that the slimes are part of fines and hence liable to be included in Clause (ii) of Entry 23 for the purpose of charging the royalty. In the mining circles, fines and slimes both have different meanings. Both the terms are well understood as two different objects. Slimes cannot be included in 'fines'.

Dealing with the topic of technical words in technical sense, Justice G.P. Singh states in Principles of Statutory Interpretation (Ninth Edition, 2004 at pp. 97-99) — “in determining the meaning or connotation of words and expressions describing an article in a tariff Schedule, one principle which is fairly well settled is that those words and expressions should be construed in the sense in which they are understood in the trade by the dealer and the consumer. The reason is that it is they who are concerned with it, and, it is the sense in which they understand it which constitutes the definitive index of legislative intention”. “The true test for classification was the test of commercial identity and not the functional test”. The learned author states that the question to be asked in such cases is “how is the product identified by the class or section of people dealing with or using the product?” If the word has acquired a particular meaning in the trade or commercial circles that meaning becomes the popular meaning in the context and should normally be accepted. The words having a special meaning in the context of a particular field of art or science ought to be understood in that sense. Such a special meaning, i.e. the technical

A meaning, shall be assigned as distinguished from the more common meaning that the word may have.

B It is clear that in iron ore production the run of mine (ROM) is in a very crude form. A lot of waste material called 'impurities' accompanies the iron ore. The ore has to be upgraded. Upgrading the ores is called "beneficiation". That saves the cost of transportation. Different processes have been developed by science and technology and accepted and adopted in different iron ore projects for the purpose of beneficiation. In the processes, a stage is reached which yields concentrates. They are treated in the concentrate plant by resort to physical, chemical and/or electrical methods. The valuable constituents are retained and what is discarded as 'tailings' or 'slimes' is something of no commercial value, being just impurities consisting of unusable materials. Concentrates is not necessarily a stage reached in all the processes. Concentrates consist of enriched ore segregated from waste in concentration plant. It is a substance of intensified strength having been purified by removal of valueless mud, slurry, impurities and waste. Wet processing (at a stage after fines have already been won) separates extremely fine particles, grains or fragments of ore which are too poor to be treated any further and have to be flown for being consigned to tail ponds as waste separated from concentrates. From concentrates iron can yet be won. Concentrates differ from slimes which are to be found as such not in concentration plant but only in tail pond. What reaches tailings dam or pond is slurry. Solid particles are deposited and clean water overflows. This processing is done to prevent pollution and to protect environment. There are ferrous contents in the slurry but that is a total waste. Inasmuch as, and undisputedly, by any process or technique known to science and technology till this date, winning of ferrous contents from out of the slurry is commercially unviable. The slimes are accepted by the mother Earth once again to be dissolved in its womb.

G The Parliament knowing it full well that the iron ore shall have to undergo a process leading to emergence of lumps, fines, concentrates and slimes chose to make provision for quantification of royalty only by reference to the quantity of lumps, fines and concentrates. It left slimes out of consideration. Nothing prevented the Parliament from either providing for the quantity of iron ore as such as the basis for quantification of royalty.

H It chose to make provision for the quantification being awaited until the

emergence of lumps, fines and concentrates. Having done so the Parliament has not said — “fines including slimes”. Though ‘slimes’ are not ‘fines’ the Parliament could have assigned an artificial or extended meaning to ‘fines’ for the purpose of levy of Royalty which it has chosen not to do. It is clearly suggestive of its intention not to take into consideration ‘slimes’ for quantifying the amount of royalty. This deliberate omission of Parliament cannot be made good by interpretative process so as to charge royalty on ‘slimes’ by reading Section 9 of the Act divorced from the provisions of the Second Schedule. Even if slimes were to be held liable to charge of royalty, the question would still have remained at what rate and on what quantity — which questions cannot be answered by Section 9.

May be at some point of time in future when the science and technology have succeeded in evolving a process rendering the slimes a useful and valuable goods on account of availability of any process making it commercially viable to retrieve iron therefrom, the Parliament may make appropriate amendment in Entry 23 by including therein ‘slimes’ and prescribing the rate at which royalty shall be charged thereon.

Mr. Mukul Rohatgi, the learned Additional Solicitor General assisted by Mr. P.S. Narasimha, learned counsel for the appellant, has brought to our notice a very significant amendment made in the Mineral Concession Rules, 1960. The Mineral Concession Rules, 1960 (hereinafter referred to as the Rules, for short) have been framed by the Central Government in exercise of the powers conferred by Section 13 of the Mines and Minerals Regulation and Development Act, 1957. Rules 64-B and 64-C have been introduced therein by GSR 743(E) dated 25.9.2000 which read as under:

“64-B. Charging of Royalty in case of minerals subjected to processing: — (1) In case processing of run-of-mine mineral is carried out within the leased area, then, royalty shall be chargeable on the processed mineral removed from the leased area.

(2) In case run-of-mine mineral is removed from the leased area to a processing plant which is located outside the leased area, then, royalty shall be chargeable on the unprocessed run-of-mine mineral and not on the processed product.”

A “64-C. *Royalty on tailings or rejects*: — On removal of tailings or rejects from the leased area for dumping and not for sale or consumption, outside leased area such tailings or rejects shall not be liable for payment of royalty:

B Provided that in case so dumped tailings or rejects are used for sale or consumption on any later date after the date of such dumping, then, such tailings or rejects shall be liable for payment of royalty.”

C Though the objects and reasons which prompted the abovesaid amendment are not known to us (none placed for consideration by any of the parties) in all probability the same seems to have been prompted by the pronouncement of this Court in *State of Orissa v. Steel Authority of India Ltd.* (supra). Be that as it may, the abovesaid Rules also suggest the intention of the Government that dumped tailings or rejects (or in other words ‘slimes’) are to be treated as a separate head and charge of royalty therein is not to be made as a matter of course. Dumped tailings or rejects may be liable to payment of royalty if only they are sold or consumed. Rules 64-B and 64-C are general in nature, applicable to all types of minerals. There are several other entries in the Second Schedule where a mineral is liable to royalty on tonnage basis no sooner extracted and as run-of-mine (ROM). Such entries do not further classify the mineral by reference to its constituents. The case of iron ore is different. So far as the iron ore is concerned, the provisions of the Section 9 of the Act read with Entry 23 of the Second Schedule and the abovesaid Rules homogenously construed do not subject the run-of-mine (ROM) to payment of royalty. The Second Schedule does not prescribe any rate of royalty on the iron ore as run-of-mine and the levy of royalty has to be postponed until the processing has been done and the quantity of lumps, fines and concentrates (none of which will include slimes) has been found out on the availability of which data alone the royalty is capable of being quantified. Under the Second Schedule, the slimes which have come into existence shall have to be excluded from the charge of royalty.

H S/Shri S.K. Agnihotri and Prakash Shrivastava, the learned counsel for the States of Madhya Pradesh and Chhatisgarh submitted that the Rules

64-B and 64-C have come to be framed on 25.9.2000 and cannot be applied retrospectively. We agree. There is no question of giving the abovesaid amendment in Rules a retrospective operation. These Rules only clarify the position as it already existed and are intended to remove the doubts. We have pressed the said two Rules into service only for the purpose of reinforcing the conclusion which we have already arrived at de hors the said amendment in Rules.

The case of *State of Orissa v. Steel Authority of India Ltd.* (supra), which was relied on by the High Court and by the learned counsel for the respondents before us is distinguishable. There the question arose as to the charge of royalty on dolomite and limestone dealt with by Entries 15 and 26 respectively of the Second Schedule. Both these minerals were utilized as raw material by the mining lessees on the leased area itself. The mining lessee claimed that dolomite and limestone having been extracted from the mine underwent processing wherein a part of the mineral was wasted and the wastage remained on the leased area and not removed therefrom. The contention of the lessee was that royalty could not be demanded on that portion of the wastage which was *not removed* from the mining area. This contention was repelled by this Court by reference to Section 9(1) of the Act which speaks of payment of royalty in respect of any mineral *removed or consumed* by the lessee. The Court held that though the impurities part of dolomite and limestone was not removed from the leased area but that would not make any difference as the run-of-mine was itself consumed in the processing on the leased area.

Entry 15 levies royalty on tonnage basis on the dolomite itself so also Entry 26 levies royalty on limestone itself as run-of-mine though two different rates are prescribed depending on the grade or percentage of silica content in the limestone. The scheme of those two entries is different from the scheme of Entry 23 dealing with iron ore. As no rate of royalty has been prescribed in the Second Schedule to be charged on slimes and also no rate of royalty has been prescribed on iron ore as run-of-mine, royalty cannot be charged on the wastage.

Our answers to the questions framed in the earlier part of this judgment are:

A (i) 'Slime' or 'slimes' is a term well understood in mining industry and trade. It is different from 'fines' and 'concentrates' -- the term as used in the Second Schedule, Entry-23 of this Act;

B (ii) 'Slime' or 'slimes' cannot be included in 'fines' or 'concentrates' for the purpose of charging royalty under Section 9(1) read with Entry-23 of the Second Schedule of the Act.

C The judgment of the High Court cannot therefore be sustained. The appeals are allowed. The impugned judgment of the High Court is set aside. A writ shall issue in favour of the appellant in all the four writ petitions filed by it commanding the respondents to not to charge royalty on the quantity of slimes. No order as to the costs.

D D.G.

Appeals allowed.