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C. Richard Tinsley, *Capital Costs for Individual Manganese Nodule Mining Consortia*, presented to McGill University seminar, "Deep sea bed mining of manganese nodules — a commercial approach to the challenges", Montreal, 16 March 1978, pp. 7, 12, 17, 20 and 23.

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Arthur D. Little, Inc., *Technological and Economic Assessment of Manganese Nodule Mining and Processing*, revised ed. (Cambridge, Mass., 1979), prepared for the United States Department of the Interior, Office of Minerals Policy and Research Analysis, table 1, p. 5 and table 12, p. 43.

J.-P. Lenoble, *Polymetallic Nodules Resources and Reserves in North Pacific from the Data Collected by AFERNOD*, presented at Oceanology International 80, Brighton, February 1980, table 5.

NOTES

1. It is advisable to consult the published sources for information about the purpose, coverage and method of estimation and the data base used in the case of each estimate.

2. No attempt was made to adjust any of the estimates to make them comparable.

3. The figures have been rounded to the nearest $5 million.

4. "Number of metals" means number of metals to be extracted from the sea-bed nodules. "3" stands for nickel, copper and cobalt; "4" stands for nickel, copper, cobalt and manganese.

5. The reader's attention is drawn to the following facts:

(*a*) For the addition of manganese, capital cost estimates range from $80 million-$300 million.

(*b*) For prospecting costs, estimates range from $2 million-$25 million.

(*c*) For exploration costs, estimates range from $15 million-$80 million.

(*d*) For R + D costs, estimates range from $50 million-$200 million.

(*e*) Recently, some consortia have indicated that before the development of a project at full scale, a demonstration phase will be necessary. The cost estimates for this phase range from $75 million-$250 million. None of the estimates in the table include this amount.

(*f*) For capital costs in the transportation sector, estimates range from $50 million-$150 million.

(*g*) For working capital, estimates range from $40 million-$85 million.

(*h*) None of the estimates in the table include capital costs of the marketing sector, if any.

(*i*) The escalation factor for obtaining estimates in 1980 dollars from those in dollars of the late 1970s range from 5-10 per cent annually.

(*j*) The later the date of estimation, the higher the estimate, in general.

[a] m = 1 million.

DOCUMENT A/CONF.62/L.66*

Effects of the production limitation formula under certain specified assumptions: report of the Secretary-General

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1. At its 141st meeting on 29 August 1980,[29] the Third United Nations Conference on the Law of the Sea requested the Secretary-General to conduct a detailed study analysing the effects of a ceiling-floor-safeguard formula set out in article 151, paragraph (2) (*b*), contained in the report of the co-ordinators of the working group of 21.[30] The formula, as recommended by the co-ordinators, was embodied in the draft convention on the law of the sea (informal text) (A/CONF.62/WP.10/Rev.3 and Corr.1 and 3). The Conference also indicated that the study should be based upon a range of parameters, including successive production start-up dates, ranging from 1985 to 1995, and assumed projected growth rates for world consumption of nickel of 2.0 per cent, 3.0 per cent, 3.5 per cent, 4.0 per cent, 4.5 per cent and 5.0 per cent during each of those years, based on the 15-year trend line value for 1979 and the historical data from Metallgesellschaft AG. Furthermore, any results or illustrative data should be accompanied by a full indication of the methods used. The present report, together with the annexes, describes the outcome of the study. Paragraphs 2 to 10 contain the observations and deductions that one may make from the results. The latter part of the report is more concerned with an explanation of the working of the production limitation formula and the methods used in this study.

2. It should be emphasized that this is primarily a numerical study which illustrates the effects that the assumptions specified in the directive would have when applied in the production limitation formula pertaining to sea-bed mining. The study itself does not attempt to predict the effects that the calculated production ceilings may have on sea-bed mining, on other nickel producers, or on the nickel industry as a whole. That, of course, depends on many other factors and must remain a matter of opinion or judgement, based on the reader's own assessment of the most likely situation. It is hoped, however, that the study will give a better understanding of the production limitation formula and provide a clearer basis for evaluation.

3. Two main factors affect the production ceiling for a particular year calculated according to the formula: cumulation over time and the statistical data from which the trend line is derived. Cumulation occurs in two ways: the time-distance of the particular year into the future and the time-distance of the particular year from the year prior to the commencement of the interim period. The effects of the statistical data are reflected in two parameters: the growth rate during the relevant 15-year period and the base amount on which the growth rate is applied. It is an obvious fact but it should be noted that the growth rate and the base amount of the relevant 15-year period are to be distinguished from the growth rate and the base amount used in this study to obtain post-1979 data. Except for the 15-year periods which consist entirely of the post-1979 years, the growth rate and the base amount of a 15-year period will be different from the growth rate and base amount used to obtain post-1979 data. A further point should be noted, that while the growth rate is the parameter which attracts most interest and is more often quoted, the base amount to which the growth rate is applied is extremely important in an exponential trend line.

4. How well the production ceilings calculated in this study will correspond to the actual production ceilings in the future depends on how accurately the assumptions regarding the year of the earliest commercial production and the statistical data reflect future realities. For example, at present there is no

*Incorporating document A/CONF.62/L.66/Corr.1 of 3 March 1981.

[29] See *The Third United Nations Conference on the Law of the Sea*, vol. XIV (United Nations publication, Sales No. E.82.V.2).

[30] *Ibid.*, document A/CONF.62/C.1/L.28/and Add.1.

apparent consensus of opinion concerning the future behaviour of world nickel consumption and therefore the data sets specified must, of necessity, cover a wide range of possibilities. It is not the purpose of the study to determine or apportion degrees of confidence for any particular set. Also, estimates of future nickel consumption vary according to the purpose, method and data base of estimation. For the purpose of assessing the technical problems involved in a production limitation formula, the group of technical experts of negotiating group 1 concluded that projection of a past trend by fitting an exponential growth curve to a 15-year historical series of data is an appropriate procedure for estimating future nickel consumption.[31] It is also implicit in their conclusion that in future years projection should be repeated, based on the most recent 15-year historical series of data. This study, however, projects far into the future and it is specified that the calculations be made by applying various assumed growth rates to the trend line value for 1979. The method and data base for obtaining these "substitute" figures for future nickel consumption to be used in the study then differs from those suggested by the group of technical experts and is described in paragraphs 23 and 24.

5. The past data on nickel consumption has been characterized by quite wide fluctuations in the annual figures (see diagram 1 in annex I). An important limitation of the data sets used in this study is the absence of any such fluctuation in the post-1979 period. Therefore, the substitute figures for future nickel consumptions lack this aspect of reality. Trend lines based on 15-year data of world nickel consumption have been used in the calculations for production ceilings in order to minimize, as far as possible, these fluctuations and short-term effects. Nevertheless, even one erratic annual nickel consumption figure can affect the growth rate and the base amount in a trend line derived from the 15-year data. This when projected for a period of seven years ahead may have an even more pronounced effect. One result from the fluctuations is that the production ceiling may actually show a reduction in successive years. Several cases where this has occurred can be identified in the annexed tables.

6. As well as having a direct effect on the production ceiling calculations, the cumulation factor has an additional significance in this type of study because the study is based on the extrapolation of assumed criteria over a fairly long period from a known data base. Diagram 1 illustrates how the scope of the data used in the study broadens out towards the end of the period. It follows then that as one advances further in time, the wider is the range of possible results and, inevitably, there may be a lowering of the confidence level of these results. Taking a numerical example, from table 1 in annex 1, if the earliest commercial production were to take place in 1985, the production ceiling would be 174.9 thousand metric tons irrespective of what changes may occur in the nickel consumption statistics.[32] If the earliest commercial production were to take place in 1988, the assumed range of growth rates (2 per cent to 5 per cent) would account for a possible variation in production ceilings for the year of the earliest commercial production of 180.4 to 196.4 thousand metric tons which is only 4.2 per cent variation from the arithmetic mean. The production ceilings for the earliest commercial production date of 1991 would be 155.9 to 229.3 thousand metric tons which would be 19.1 per cent variation from the arithmetic mean but for an earliest commercial production date of 1995, the production ceilings would be 153.7 to 348.5 thousand metric tons which would be 39.0 per cent variation from the arithmetic mean. Further along the time scale, say for the year 2004, it can be noted that the same assumed variations in growth rate along with changes in the date of the earliest commercial production would account for a possible variation in the production ceiling calculated from that year of 316.0 to 1,154.8 thousand metric tons, a variation of 57 per cent from the arithmetic mean. Though it is not the intention of this study to define what variation in these figures is acceptable as working estimates, there does seem to be a range of possible production ceilings for an early year as the year of the earliest commercial production which could even at this time command some degree of confidence. The long-term forecasts of production ceilings which must be calculated from a much wider data range are, however, unlikely to receive the same acceptance. This is merely an illustration of the principle stated above, that the further advanced in time from the known data base, the less precise the results.

7. The effect of the various parameters on the calculated production ceiling for the year of the earliest commercial production is extremely complex. In cases D, E and F of this study (assumed annual growth rates of 4.0, 4.5 and 5.0 per cent) there is an increase in the production ceiling for the year of the earliest commercial production as that date advances from 1985 to 1995 and in these cases there is also a general increase in the annual trend line growth rate (see table 4 of annex II). In cases B and C (assumed annual growth rates of 3.0 and 3.5 per cent) there is also an over-all increase in the production ceiling for the year of the earliest commercial production as it advances in time from 1985 to 1995 but, in these cases, the annual trend line growth rate has, in general fallen over the period. Then in case A (assumed annual growth rate of 2.0 per cent) there is a generally decreasing production ceiling for the year of the earliest commercial production as the dates advance from 1985 to 1995 and here, as in cases B and C, the trend line growth rate has fallen, in general. These results illustrate the general tendencies (even though anomalies caused by erratic values in the statistical data do, at times, occur). The reason for this behaviour in the over-all movement of the calculated production ceiling which may appear to be irregular, is that one is dealing with different exponential curves in different points of time and cumulation over different time periods; in some cases the two ways of cumulation mentioned above and the statistical data reinforce each other and in some cases they conflict.

8. Twenty-four case studies were carried out, based on four different dates for the earliest commercial production and six different growth rates for world consumption of nickel. Under one type of classification the case studies could be divided into three categories: those cases in which the assumed growth rate imposed on existing data results in an increasing trend line growth rate; those which show a falling trend line growth rate and finally those which show a fall in the trend line growth rate to below the rate of 3.0 per cent. There is no difference in respect to the way the production limitation formula is applied in the first two categories of cases, although the calculated production ceilings are different. However, attention will turn to the last category.

9. The third category, which in this study covers case A (the trend line growth rate falling below 3 per cent), is subject to the provisions of article 151, paragraph 2 (*b*) (iv) — the floor-safeguard clause. The method of application of this clause is referred to later in the study and this paragraph merely draws attention to some of the results. A study of table 4 of annex II, case A, shows that the rate of growth of the 15-year trend lines calculated in accordance with article 151, paragraph 2 (*b*) (iii) would, with the application of an assumed growth rate of 2.0 per cent on the trend line value for 1979, fall below 3.0 per cent in 1993 and the provisions of paragraph 2 (*b*) (iv) would become operative. The various tables for case A and diagrams 3 (*a*) and 3 (*b*) then show the interrela-

[31] For the report of the group of technical experts of negotiating group 1, see *Official Records of the Third United Nations Conference on the Law of the Sea*, vol. X (United Nations publication, Sales No. E.79.V.4), document A/CONF.62/RCNG/1, annex B.

[32] It should be noted that for the purpose of the study, it was assumed that the calculations have been made 5 years prior to the commencement of commercial production. Calculations can, however, be made at any time (up to a maximum of 5 years) before the commencement of commercial production, so the production ceiling for a 1985 commencement could be calculated on data up to 1983 projected to 1985.

tionship between the production ceiling calculated using the trend line increasing at 3.0 per cent annually (floor) and that calculated from the values on the original trend line for the year prior to the commencement of the interim period and the year for which the ceiling is calculated (safeguard). It can be seen that in the cases under review (Aa, Ab, Ac, Ad) the safeguard clause becomes more effective the later the date of the earliest commercial production (diagrams 3 (*a*) and 3 (*b*) illustrate the point). This is caused by the combination of two factors: first, the trend line growth rate in the series A is falling and it is below the 3.0 per cent growth rate at a time 7 years after the earliest commercial production in 1985; it is below 3.0 per cent 4 years after the earliest commercial production in 1988; and it is below 3 per cent at 1 year after the earliest commercial production in 1991. In the case of the earliest commercial production occurring in 1995, the production ceiling calculated using the trend line increasing at 3.0 per cent annually does not come into effect at all. The second factor is that the comparison of the production ceiling calculated using the trend line increasing at 3.0 per cent annually with that calculated from the difference between the original trend line values for the year for which the production ceiling is calculated and for the year prior to the commencement of the interim period can be viewed as follows: if the production ceiling calculated using the trend line increasing at 3.0 per cent annually were expressed in terms of a constant growth rate from the year prior to commencement of the interim period, that growth rate would diminish year by year until it reaches approximately 2.2 per cent at the end of the interim period. This is simply a statement of the fact that this growth rate from the year prior to commencement of the interim period is a combination of 5 years of growth at 3.0 per cent and a varying number of years of growth at 60 per cent of 3.0 per cent. Thus, it must vary year by year and diminish. It follows then that the safeguard clause will become the prevailing factor at a higher growth rate if the trend line growth rates fall below 3.0 per cent early in the interim period rather than if they fall at a later time. For instance, in case Aa the safeguard clause prevails 19 years after the commencement of the interim period when the trend line growth rate falls below 2.3 per cent; in case Ab, this occurs 15 years after the commencement of the interim period when the trend line growth rate falls below 2.4 per cent; in case Ac this occurs 11 years after the commencement of the interim period when the growth rate falls below 2.8 per cent. This conclusion must not be considered to have a simple application and an examination of diagrams 3 will indicate why a variation of some years in time may occur. The plot of the production ceiling calculated using the trend line increasing at 3.0 per cent annually is a comparatively regular curve but, even so, variations in the base amount from which it is calculated will cause some irregularities. The plot of the production ceiling calculated from the difference in the original trend line values for the year prior to the commencement of the interim period and the year for which the ceiling is calculated is more subject to yearly fluctuations and thus the resulting curve is much more erratic. The intersection point of these two rather irregular curves can then move quite considerably, and it would not be possible to predict with any degree of precision at what point in time this intersection will occur (a comparison between diagrams 3 (*a*) and 3 (*b*) illustrates the point). It is interesting to note that, after the year 2001 when the curves are completely influenced by the assumed data, the production ceiling calculated from the difference in the values on the original trend line (the growth rate of which has now fallen to 2.0 per cent) prevails at all times over that calculated using the trend line increasing at 3.0 per cent annually (which by this time has an effective growth rate of approximately 2.2 per cent).

10. The production limitation formula has evolved during a number of discussions and various factors were introduced in order to balance, as far as possible, different interests and to take account of imponderable and erratic events. The preceding paragraphs have explained how the various factors affect the results in quite different ways and that the combined effect is extremely involved. In any particular case and with a given set of data, the result is predictable but the whole scheme cannot be explained in simple generalizations.

METHOD OF APPLICATION OF THE STUDY PARAMETERS TO THE PRODUCTION LIMITATION FORMULA SET OUT IN ARTICLE 151, PARAGRAPH 2 (*b*)

11. The production limitation formula or the ceiling-floor-safeguard formula mentioned in paragraph 1 above pertains to the production policies related to the production of minerals such as nickel, copper, cobalt and manganese from the polymetallic nodules recovered from the sea-bed and ocean floor beyond the limits of national jurisdiction (the Area). The establishment of the formula is guided by the objectives set out in article 150 of the draft convention on the law of the sea (informal text).

12. The basic application of the formula which is set out in article 151, paragraph 2 (*b*) is that during the interim period, the commercial production of nickel from the polymetallic nodules in any year is not to exceed a ceiling for that year, calculated according to the formula. The ceiling is calculated on the basis of values on a trend line computed during the year in which authorization for production is issued. The trend line is derived from a linear regression of the logarithms of the annual amounts of world consumption of nickel for the most recent 15-year period for which such data are available, time being the independent variable. The trend line thus depicts a log-linear relationship between world consumption of nickel and time and gives an exponential rate of growth from which an annual rate of increase can be derived.

13. If the annual rate of increase of the trend line is less than 3 per cent, then the ceiling is calculated on the basis of a trend line which increases at a notional 3.0 per cent annually. This is the so-called floor clause and it does not indicate a minimum below which commercial production of nickel from the polymetallic nodules cannot fall; rather it specifies a minimum annual rate of increase of the trend line on the basis of whose values the ceiling is calculated.

14. Finally, in the case when the ceiling is calculated on the basis of the values on the trend line increasing at 3.0 per cent annually, that ceiling may not exceed a certain amount which is specified in an additional proviso set out in article 151, paragraph 2 (*b*) (iv). This is the so-called safeguard clause. The ceiling-floor-safeguard formula is an over-all formula for calculating the ceiling for commercial production of nickel from the polymetallic nodules under the various conditions that may arise.

15. Nickel is chosen as a standard for the sake of convenience. The ratios in which other metals such as copper, cobalt and manganese occur in the polymetallic nodules is fixed by the average chemical properties of those nodules processed. The levels of production of the other metals extracted from the nodules may not be higher than those which would have been produced had the operator produced the maximum level of nickel from those nodules (see art. 151, para. (2) (*f*)). The purpose of this is to ensure that the production of nickel, which is subject to the production limitation formula, is not kept below the optimum in order to obtain a higher than normal production of the other metals when market conditions make this attractive.

16. The production ceiling is to be calculated for any year of planned production falling within the interim period (see art. 151, para. (2), introduction). The interim period shall begin five years prior to 1 January of the year in which the earliest commercial production is planned to commence under a plan of work approved by the Authority and shall last 25 years, except in some specified situations (see art. 151, para. (2) (*a*)).

17. The year of the earliest commercial production can only be estimated at this time and the Conference has directed that the possibility of it falling in any year within the period 1985-1995 be considered. In order to keep the study within manageable proportions, four particular years were chosen: 1985, 1988, 1991 and 1995 (cases a, b, c, d). It thus includes the first and the last year and evenly spans the period except for the last four-year interval.

18. Once the year of the earliest commercial production is assumed, the year of the commencement of the interim period and that of end of the interim period can be determined, as explained in paragraph 16 above. For example, if the year of the earliest commercial production is assumed to be 1985, the year of the commencement of the interim period would be 1980 and the interim period would last until year 2004. The production ceiling in this study thus is calculated for the years 1985-2004 (see column 1 in table 4 of annex II). Calculations are made only up to year 2004, even for interim periods commencing later than 1980 (e.g. in the case of the year of the earliest commercial production being 1995, the interim period commences in 1990 and lasts until 2014). This too was done to limit the study to manageable proportions.

19. The production ceiling for any year of the interim period is calculated on the basis of values on a trend line computed during the year in which a production authorization is issued (see art. 151, para. (2) (*b*) (iii)). The production authorization can be issued in any year prior to the commencement of production under a plan of work but with a maximum time-limit of 5 years except in special circumstances (see art. 151, para. (2), introduction).

20. For the sake of consistency, it is assumed in this study that a production authorization is issued at the maximum limit of five years prior to the commencement of commercial production under a plan of work.[33] It is also assumed that planned commencement of commercial production under a plan of work can be in any year within the interim period. Thus, the production ceiling is calculated for every year within the interim period in a year which, in this study, has been assumed to be five years prior to the year in question. For example, the production ceiling for 1985 has been calculated in 1980, the one for 1986 will be calculated in 1981 and so on (see column 2 in table 4 of annex II). It should be noted that the production authorization is issued not only for the year of planned commencement of commercial production but also for all the years within the interim period in which production is planned under the plan of work. For the sake of brevity, calculations for the years subsequent to the year of commencement of planned production are not made in this study.

21. The trend line computed during the year in which a production authorization is issued shall be derived from a linear regression of the logarithms of actual nickel consumption for the most recent 15-year period for which such data are available, time being the independent variable (see art. 151, para. (2) (*b*) (iii)).

22. There is usually a two-year delay in reporting and compiling actual annual world nickel consumption data. Thus today, in 1981, the last year for which such data are available is 1979 and the relevant 15-year period is 1965-1979. It can be assumed that this two-year gap will occur in future years also. If one excludes the current year, the gap is only for one year. For this reason, in this study, the trend line computed in 1982 will be derived from the 1966-1980 data, the trend line computed in 1983 will be derived from the 1967-1981 data, and so on (in each case the data after 1979 are the substituted version, see column 3 in table 4 of annex II).

23. In order to calculate now, in 1981, the trend line and production ceiling which, in reality, would be calculated in some future year, based on actual nickel consumption data available at that time, one would require some data for the post-1979 years which can be substituted for the actual nickel consumption data for those years.

24. The substitute data used in this study are obtained by applying the six alternative growth rates for nickel consumption specified by the Conference, i.e. 2.0 per cent, 3.0 per cent, 3.5 per cent, 4.0 per cent, 4.5 per cent and 5.0 per cent (cases A, B, C, D, E, F) to a base amount representing the 1979 world consumption of nickel. This base amount is the value for 1979 on the trend line derived from a linear regression of logarithms of actual nickel consumption for the years 1965 to 1979 as reported by Metallgesellschaft AG in the annual editions of "Metal Statistics". The amount for 1979 is 749.0 thousand metric tons. Table 1 of annex II presents the actual data for world consumption of nickel in the period 1965-1979, from which this trend line figure was derived. Table 2 of annex II then lists the substitute data calculated from this derived 1979 consumption figure. The figures are also shown in diagram 1 (see annex I).

25. As an illustration, the trend line computed in 1989 would be derived from the 1973-1987 data which comprise the 1973-1979 actual data from table 1 of annex II and the 1980-1987 substitute data (6 alternative sets in table 2 of annex II). In the calculations for later years, the trend line will eventually have to be derived entirely from post 1979 data, i.e. substitute data, given in table 2 of annex II.

26. As noted earlier, article 151, paragraph (2) (*b*) (iii) specifies the method by which the trend line is derived. The method is described in detail in the progress report of the group of technical experts of negotiating group 1. It is a well-known statistical method that can be carried out using calculating machines, pocket calculators and computers.[34]

27. The method of calculation specified in article 151 ensures that only one trend line can be derived from the relevant 15-year data. The trend line, when so calculated, defines the trend line value for each year of the 15-year period and can be extended forward or backward to get values for the years subsequent or prior to the 15-year period.

28. Paragraph (2) (*b*) (i) and (ii) specify how the production ceiling is to be calculated from the trend line derived according to the procedure mentioned in the preceding paragraphs. The production ceiling in any year is the sum of two amounts. They are first the difference between the trend line values of annual nickel consumption for the year immediately prior to the year of the earliest commercial production and the year immediately prior to the commencement of the interim period, and secondly, 60 per cent of the difference between the trend line values for the year for which the production authorization is being applied for and the year immediately prior to the year of the earliest commercial production.

29. Four alternative dates have been assumed for the year of earliest commercial production (1985, 1988, 1991, 1995). These then determine four alternatives for the year prior to the earliest commercial production, for the year of the commencement of the interim period and for the year prior to commencement of the interim period. Table 3 of annex II gives these three dates which are relevant to each of the four assumed dates for the earliest commercial production.

30. The values on the trend line for each of the three relevant years are then observed. Columns 6, 7 and 8 in table 4 of annex II give these values for the several assumed dates for the earliest commercial production. As an example, if the production ceiling for 1985 is calculated in 1980 on the basis of nickel

[33] This is consistent with the assumption made in the explanatory memorandum on calculating the production ceiling using the formulation in document NG1/10/Rev.1 communicated to delegations by an informal letter from the President of the Third United Nations Conference on the Law of the Sea, dated 21 February 1979.

[34] In this study, trend lines were derived by using the pre-packaged TSP (Time Series Processor) programme for computers, version 2.7 as formulated by John Brode *et al.* of Harvard University.

consumption data 1964-1978, and if it is assumed that the year of the earliest commercial production is 1985 then the trend line values for 1979 (the year prior to the commencement of the interim period), for 1984 (the year prior to the year of the earliest commercial production) and for 1985 (the year for which the production authorization is being applied for i.e. the year for which the production ceiling is calculated) are observed. From the first row in table 4 of annex II, case Aa, these values are 745.7, 899.9 and 934.4 thousand metric tons respectively. The production ceiling for 1985 calculated in 1980 then is (899.9 - 745.7) + 60 per cent of (934.4 - 899.9) = 174.9 thousand metric tons.

31. Paragraph (2) (*b*) (iv) of article 151 specifies the method of calculating the production ceiling in the case when the trend line, as derived in accordance with paragraph (2) (*b*) (iii), shows an annual rate of increase of less than 3.0 per cent. First, the original trend line is discarded and a new trend line is used. The new trend line has an annual rate of increase of 3.0 per cent and passes through the original trend line value for the first year of the 15-year period; it is, in fact, a trend line starting from the same base amount as the original trend line but increasing at a rate of 3.0 per cent annually.

32. This new trend line increasing at 3.0 per cent annually is then used in a similar calculation to that specified in paragraph 2 (*b*) (i) and (ii) i.e. the difference between the values on this trend line for the year prior to earliest commercial production and the year prior to the commencement of the interim period is added to 60 per cent of the difference between the value for the year for which the production ceiling is calculated and that for the year prior to the earliest commercial production.

33. The amount calculated in accordance with the above paragraphs is, however, still subject to the safeguard clause. This requires that the amount so calculated be compared with an amount which is equal to the difference between the value on the original trend line for the year for which the production ceiling is calculated and the value on the original trend line for the year prior to the commencement of the interim period and the lesser of these two amounts is the production ceiling.

34. Column 4 in table 4 of annex II gives the annual rate of increase of the original trend line. Column 5 gives the value on the original trend line for the first year of the relevant 15-year period. Columns 10, 11 and 12 give the values on the trend line, increasing at 3.0 per cent annually, for the three relevant years. Column 13 gives the amount mentioned in paragraph 32. Column 14 gives the difference between the values on the original trend line for the two relevant years. Finally, column 15 gives the production ceiling, the lower of the amounts in column 13 and column 14. It should be noted that columns 10-15 are required when the annual rate of increase of the original trend line falls below 3.0 per cent. This occurs only in some years under case A where a 2.0 per cent assumed growth rate is applied and in one year under case B where a 3.0 per cent assumed growth rate is applied. Two particular years under case Aa have been used for illustration (see diagrams 3 (*a*) and 3 (*b*)). In these cases the earliest commercial production is 1985 and a 2.0 per cent growth rate has been assumed and the years for which the ceiling is being calculated are 1993 and 1999. In these years, the trend line growth rate has fallen to 2.7 per cent and 2.0 per cent respectively.

35. It may be advisable to summarize the scope of the study and the following table may be helpful. Twenty-four case studies have been made and they are identified by the letters Aa through to Fd in the following way:

Year of the earliest commercial production	*Growth rate applied to the 1979 trend line value to obtain substitute data for post-1979 years*					
	2.0% (A)	3.0% (B)	3.5% (C)	4.0% (D)	4.5% (E)	5.0% (F)
1985 — (a) ...	Aa	Ba	Ca	Da	Ea	Fa
1988 — (b) ...	Ab	Bb	Cb	Db	Eb	Fb
1991 — (c) ...	Ac	Bc	Cc	Dc	Ec	Fc
1995 — (d) ...	Ad	Bd	Cd	Dd	Ed	Fd

Thus, the study marked Bc would be based on the assumed 3.0 per cent increase in world nickel consumption from the 1979 trend line value if the earliest commercial production occurred in 1991.

36. The production ceilings under the various cases are summarized in table 1 of annex I.

37. The calculation of the production ceilings under the various cases is shown in more detail in table 4 of annex II. In addition, three other tables have been included in annex II. Table 1 of annex II gives the actual world nickel consumption for the years 1964-1979. Table 2 of annex II gives the calculated substitute data for world nickel consumption in post-1979 years (applying the prescribed growth rates of 2.0 to 5.0 per cent on the 1979 trend line value). Table 3 of annex II lists the selected years for earliest commercial production and the corresponding years required for the calculations.

38. Six diagrams have been prepared:

Diagram 1 shows the actual world nickel consumption for the years 1964-1979 and the calculated substitute data for world nickel consumption in post-1979 years (as in tables 1 and 2 of annex II).

Diagram 2 (*a*) illustrates how the calculations for the production ceiling would be made when the annual rate of increase of the trend line is 3.0 per cent or more. In the case illustrated, the year of the earliest commercial production has been taken as 1988, and the year for which calculation is made is 1997 (under case Cb).

Diagrams 2 (*b*) and 2 (*c*) illustrate how the calculations for the production ceiling would be made (under case Aa) if the year of the earliest production is 1983 and the year for which the calculation is made were 1993 (diagram 3 (*a*)) or 1999 (diagram 3 (*b*)). In the first case, the trend line increasing at 3.0 per cent annually determined the production ceiling and in the second case the production ceiling is determined from the original trend line and calculated in accordance with the safeguard clause in article 151, paragraph 2 (*b*) (iv).

Diagrams 3 (*a*) and 3 (*b*) show the production ceilings as calculated for case Aa and Ab. The purpose here is to illustrate the shifting relationship between the amount calculated from a trend line increasing at 3.0 per cent annually (floor) and the amount calculated from the original trend line in accordance with the safeguard clause.

ANNEX I

TABLE 1. PRODUCTION CEILING FOR YEARS 1985-2004 UNDER VARIOUS ASSUMPTIONS ABOUT THE SUBSTITUTES FOR ACTUAL NICKEL CONSUMPTION DATA FOR 1980-2004 AND ABOUT THE YEAR OF THE EARLIEST COMMERCIAL PRODUCTION

Case A. Substitutes for actual nickel consumption data obtained by applying a growth rate of 2.0 per cent on the trend line value for 1979

	Year of the earliest commercial production			
	1985 (Case Aa)	1988 (Case Ab)	1991 (Case Ac)	1995 (Case Ad)
Year (1)	Production ceiling (thousand metric tons) (2)	(3)	(4)	(5)
1985	174.9			
1986	195.1			
1987	207.0			
1988	223.7	180.4		
1989	231.5	190.2		
1990	235.0	196.0		
1991	231.5	195.3	155.9	
1992	250.6	214.5	175.1	
1993	276.2	239.2	198.8	
1994	299.7	262.4	209.0	
1995	316.2	279.3	239.0	153.7
1996	327.6	291.8	252.7	194.9
1997	359.5	322.7	278.7	194.5
1998	382.7	345.8	290.2	209.9
1999	368.3	322.0	272.9	202.6
2000	364.4	320.7	274.5	208.6
2001	409.2	363.3	314.7	245.1
2002	432.4	386.5	337.9	268.3
2003	456.0	410.1	361.5	291.9
2004	480.1	434.2	385.6	316.0

Case B. Substitutes for actual nickel consumption data obtained by applying a growth rate of 3.0 per cent on the trend line value for 1979

	Year of the earliest commercial production			
	1985 (Case Ba)	1988 (Case Bb)	1991 (Case Bc)	1995 (Case Bd)
Year (1)	Production ceiling (thousand metric tons) (2)	(3)	(4)	(5)
1985	174.9			
1986	195.1			
1987	209.1			
1988	230.0	185.7		
1989	244.4	201.2		
1990	256.3	214.5		
1991	263.0	223.0	178.9	
1992	295.7	254.5	209.0	
1993	293.5	254.7	212.2	
1994	306.0	268.1	226.7	
1995	348.7	309.1	265.6	200.6
1996	414.8	372.4	325.3	254.1
1997	399.2	359.5	315.8	250.6
1998	418.6	379.4	336.2	271.9
1999	409.5	372.3	331.7	271.5
2000	439.0	401.3	360.2	299.4
2001	459.3	422.1	381.4	321.2
2002	485.1	447.9	407.2	347.0
2003	511.7	474.5	433.8	373.6
2004	539.1	501.9	461.2	401.0

TABLE 1 (*continued*)

Case C. Substitutes for actual nickel consumption data obtained by applying a growth rate of 3.5 per cent on the trend line value for 1979

	Year of the earliest commercial production			
	1985 (Case Ca)	1988 (Case Cb)	1991 (Case Cc)	1995 (Case Cd)
Year (1)	Production ceiling (thousand metric tons) (2)	(3)	(4)	(5)
1985	174.9			
1986	195.1			
1987	210.1			
1988	233.2	188.4		
1989	250.8	206.7		
1990	267.2	224.0		
1991	279.4	237.4	191.0	
1992	319.3	275.7	227.1	
1993	324.4	282.6	236.4	
1994	345.5	303.9	258.1	
1995	398.7	355.1	306.6	233.3
1996	477.4	430.7	378.2	297.9
1997	470.3	425.9	376.3	301.3
1998	500.0	455.7	406.4	331.6
1999	498.7	456.0	408.9	337.8
2000	514.6	472.6	426.2	356.8
2001	564.5	521.8	477.4	403.1
2002	598.1	555.3	507.9	436.6
2003	632.7	590.0	542.6	471.3
2004	668.7	626.0	578.5	507.3

Case D. Substitutes for actual nickel consumption data obtained by applying a growth rate of 4.0 per cent on the trend line value for 1979

	Year of the earliest commercial production			
	1985 (Case Da)	1988 (Case Db)	1991 (Case Dc)	1995 (Case Dd)
Year (1)	Production ceiling (thousand metric tons) (2)	(3)	(4)	(5)
1985	174.9			
1986	195.1			
1987	211.0			
1988	236.3	191.1		
1989	257.4	212.4		
1990	278.4	233.9		
1991	296.3	252.3	203.5	
1992	343.8	297.6	246.0	
1993	356.7	311.8	261.8	
1994	387.0	341.9	291.6	
1995	452.0	404.3	350.8	269.0
1996	544.5	493.7	435.8	346.0
1997	547.1	498.1	442.6	357.4
1998	588.4	539.2	483.6	398.1
1999	596.2	548.2	494.5	412.2
2000	621.0	573.6	520.6	439.7
2001	680.8	632.7	578.6	496.1
2002	723.4	675.3	621.2	538.7
2003	767.7	719.7	665.6	583.0
2004	813.8	765.7	711.6	629.1

TABLE 1 (*continued*)

Case E. Substitutes for actual nickel consumption data obtained by applying a growth rate of 4.5 per cent on the trend line value for 1979

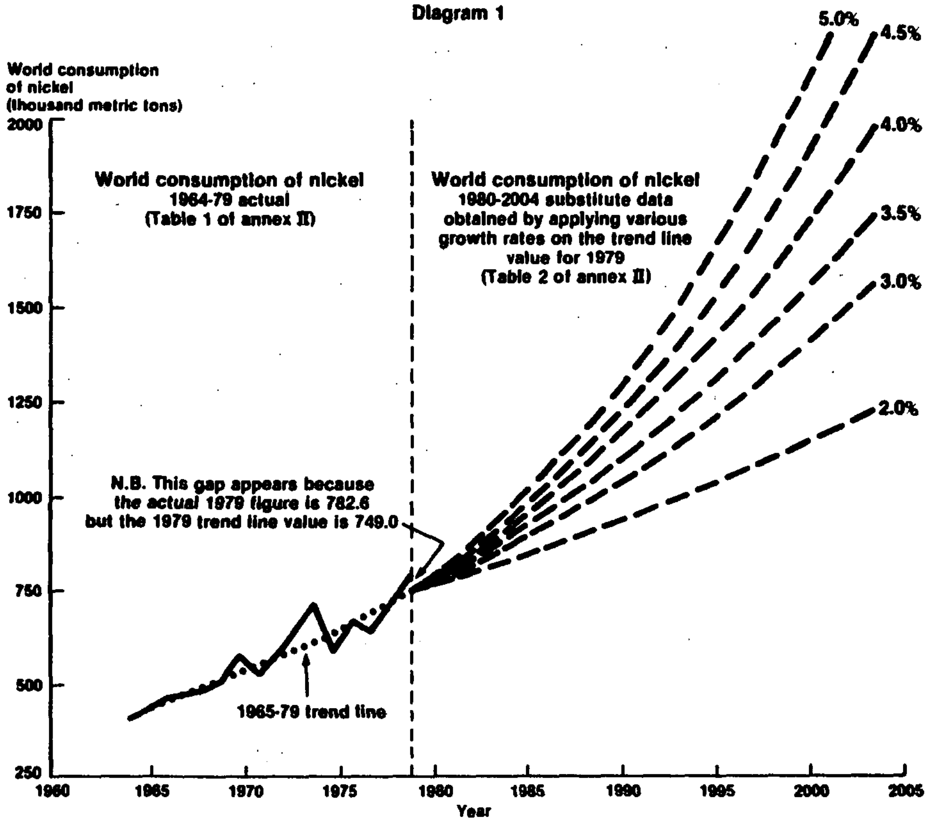
Year (1)	1985 (Case Ea) (2)	1988 (Case Eb) (3)	1991 (Case Ec) (4)	1995 (Case Ed) (5)
	Year of the earliest commercial production — *Production ceiling (thousand metric tons)*			
1985	174.9			
1986	195.1			
1987	212.1			
1988	239.5	193.8		
1989	263.9	218.0		
1990	289.5	243.5		
1991	313.3	267.4	216.2	
1992	368.9	320.2	265.5	
1993	389.9	342.0	288.2	
1994	430.2	381.5	326.8	
1995	507.7	456.1	397.6	307.1
1996	615.6	560.7	497.4	398.0
1997	629.1	575.5	514.2	418.7
1998	683.4	629.6	567.9	471.5
1999	701.5	648.8	588.6	495.1
2000	736.9	684.5	624.9	532.3
2001	807.9	754.9	694.3	600.1
2002	861.1	808.2	747.6	653.4
2003	916.8	863.8	803.3	709.1
2004	975.0	922.0	861.4	767.2

TABLE 1 (*continued*)

Case F. Substitutes for actual nickel consumption data obtained by applying a growth rate of 5.0 per cent on the trend line value for 1979

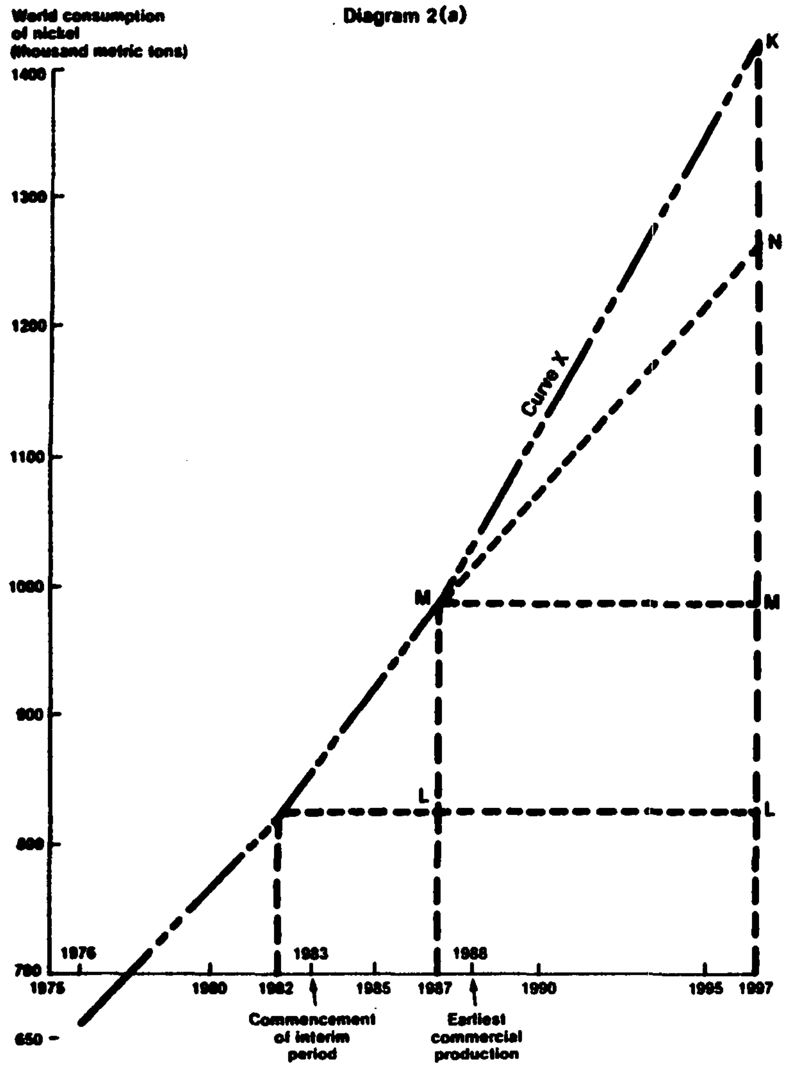
Year (1)	1985 (Case Fa) (2)	1988 (Case Fb) (3)	1991 (Case Fc) (4)	1995 (Case Fd) (5)
	Year of the earliest commercial production — *Production ceiling (thousand metric tons)*			
1985	174.9			
1986	195.1			
1987	213.0			
1988	242.7	196.4		
1989	270.5	223.8		
1990	301.0	253.6		
1991	330.8	282.9	229.3	
1992	394.8	343.7	285.8	
1993	424.6	373.7	316.1	
1994	475.6	423.4	364.2	
1995	566.8	511.3	447.8	348.5
1996	691.4	632.5	563.9	454.7
1997	717.2	659.3	592.3	486.1
1998	786.3	728.0	660.3	552.8
1999	816.5	758.9	692.3	587.2
2000	863.7	806.5	740.4	636.1
2001	947.8	890.1	823.2	717.2
2002	1013.5	955.8	888.8	782.9
2003	1082.4	1024.6	957.7	851.8
2004	1154.8	1097.1	1030.2	918.2

Diagram 1



List of Documents

Diagram 2(a)



Year of the commencement of the interim period 1983.
Year of the earliest commercial production 1988.
Year for which the production ceiling is calculated 1997.

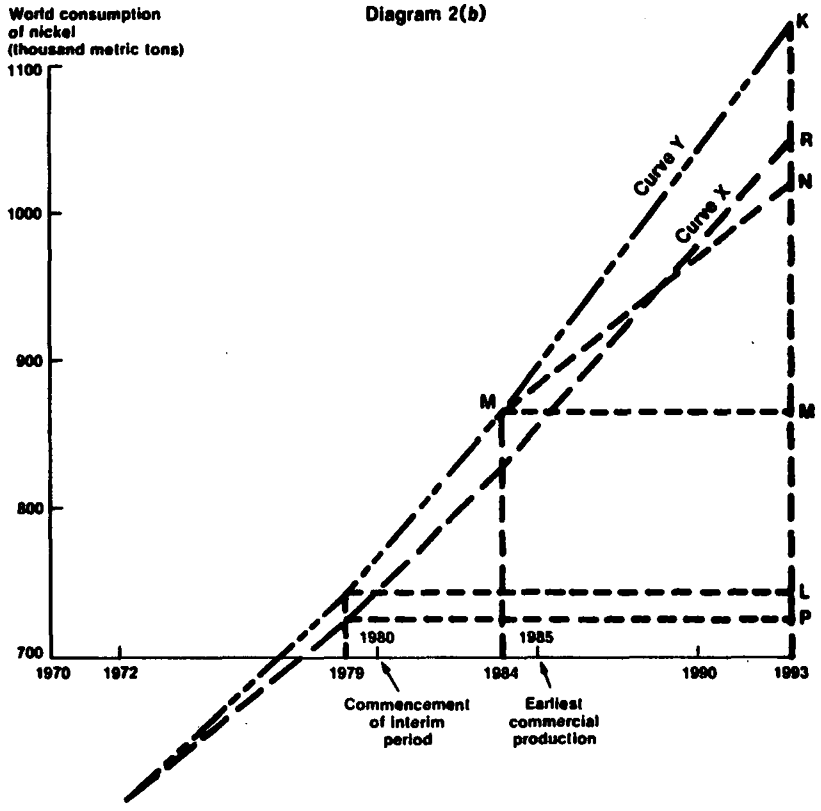
1. Curve X is the trend line derived from data for the years 1976-1990 and has an annual rate of increase of 3.7 per cent (table 4 of annex II — Case C, column 4).

2. The intercept LM represents the difference between the trend line values for the year prior to the earliest commercial production (1987) and the year prior to the commencement of the interim period (1982) and is here equal to 988.8 - 824.0 = 164.8 (table 4 of annex II, Case Cb, columns 6 and 7).

3. The intercept MN represents 60 per cent of the difference between the trend line values for the year prior to the earliest commercial production (1987) and the year for which the ceiling is calculated (1997) and is here equal to 0.6 (1423.9 - 988.8) = 261.1 (table 4 of annex II — Case Cb, columns 7 and 8). MN is 60 per cent of intercept MK.

4. The production ceiling for 1997 is the sum of LM and MN or LN, which in this case is 164.8 + 261.1 = 425.9 (thousand metric tons). (Table 4 of annex II — Case Cb, column 9).

Diagram 2(*b*)



Year of the commencement of the interim period 1980.

Year of the earliest commercial production 1985.

Year for which the production ceiling is calculated 1993.

1. Curve X is the trend line derived from data for the years 1972-86, and has an annual rate of increase of 2.7 per cent (table 4 of annex II — Case A, column 4). In the text this is referred to as the original trend line.

2. In accordance with article 151, paragraph 2(*b*)(iv), a new trend line increasing at 3 per cent annually is drawn passing through the original trend line at the value for the first year of the relevant 15-year period (point 0 in year 1972 in this diagram). This is curve Y.

3. The intercept LM represents the difference between the trend line values on the new curve Y for the year prior to the commencement of the interim period (1979) and the year prior to the earliest commercial production (1984), i.e., 862.7 - 744.2 = 118.5 (table 4 of annex II, Case Aa, columns 10 and 11).

4. The intercept MN represents 60 per cent of the difference between the trend line values on the new curve Y for the year prior to the earliest commercial production (1984) and the year for which the ceiling is calculated (1993) and is here equal to 0.6 (1,125.6 - 862.7) = 157.7 (table 4 of annex II, Case Aa, columns 11 and 12). MN is 60 per cent of intercept MK.

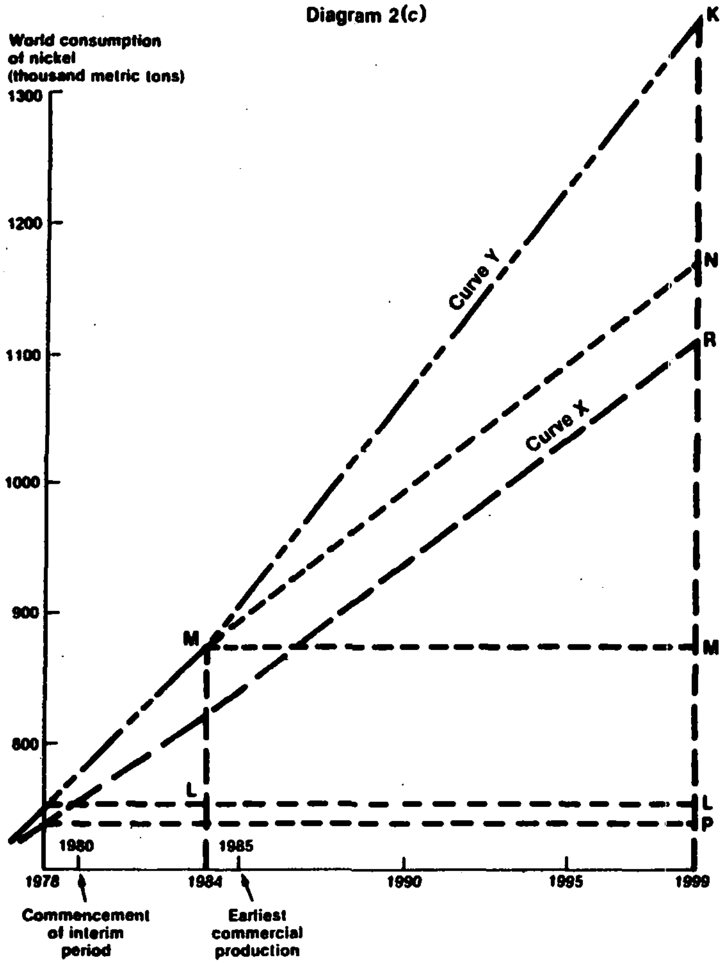
5. The sum of the two intercepts, LM and MN is represented in the diagram as LN. This is the sum of 118.5 + 157.7 = 276.2 (table 4 of annex II, Case Aa, column 13).

6. In accordance with article 151, paragraph 2(*b*)(iv), this amount must be compared with the difference on the original trend line between the values for the year prior to the commencement of the interim period (1979) and the year for which the ceiling is calculated (1993). This is represented by the intercept PR which is 1051.8 - 727.6 = 324.2 (table 4 of annex II, Case Aa, columns 6, 8 and 14).

In this case, the amount calculated on the basis of the trend line increasing at 3 per cent is 276.2 (thousand metric tons) and is less than that calculated on the basis of the original trend line in accordance with the safeguard clause which is 324.2 (thousand metric tons). The production ceiling is the lesser, i.e., 276.2 (thousand metric tons).

List of Documents

Diagram 2(c)



This diagram is similar to diagram 2(*b*), i.e., the year of the commencement of the interim period is 1980 and the year of the earliest commercial production is 1985 but the year for which the ceiling is calculated is now 1999.

1. Curve X is the trend line derived from data for the years 1978 to 1992, and has an annual rate of increase of 2.0 per cent (table 4 of annex II — Case A, column 4). In the text this is referred to as the original trend line.

2. In accordance with article 151, paragraph 2(*b*)(iv), a new trend line increasing at 3 per cent annually is drawn passing through the original trend line at the value for the first year of the relevant 15-year period (point 0 in year 1978 in this diagram). This is curve Y.

3. The intercept LM represents the difference between the trend line values on the new curve Y for the year prior to the commencement of the interim period (1979) and the year prior to the earliest commercial production (1984), i.e., 875.4 - 755.1 = 120.3 (table 4 of annex II, Case Aa, columns 10 and 11).

4. The intercept MN represents 60 per cent of the difference between the trend line values on the new curve Y for the year prior to the earliest commercial production (1984) and the year for which the ceiling is calculated (1999) and is here equal to 0.6 (1,363.8 - 875.4) = 293.0 (table 4 of annex II, Case Aa, columns 11 and 12). MN is 60 per cent of intercept MK.

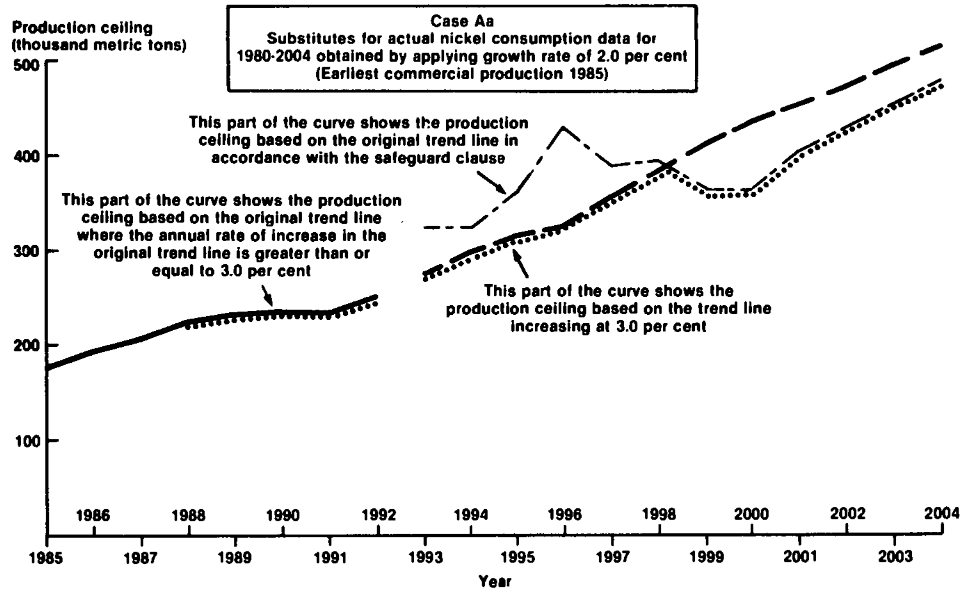
5. The sum of the two intercepts LM and MN is represented in the diagram as LN. This is the sum of 120.3 + 293.0 = 413.3 (table 4 of annex II, Case Aa, column 13).

6. In accordance with article 151, paragraph 2(*b*)(iv), this amount must be compared with the difference on the original trend line between the values for the year prior to the commencement of the interim period (1979) and the year for which the ceiling is calculated (1999). This is represented by the intercept PR which is 1116.3 - 748.0 = 368.3 (table 4 of annex II, Case Aa, columns 6, 8 and 14).

In this case, the amount calculated on the basis of the trend line increasing at 3 per cent is 413.3 (thousand metric tons) and is higher than that calculated on the basis of the original trend line in accordance with the safeguard clause which is 368.3 (thousand metric tons). The production ceiling is the lesser, i.e., 368.3 (thousand metric tons).

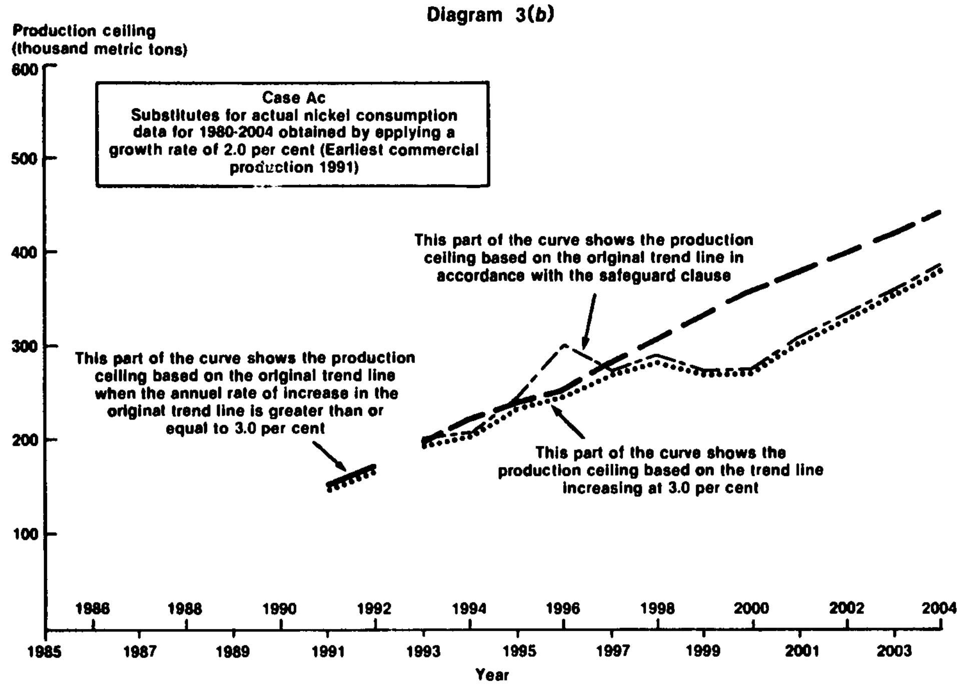
List of Documents

Diagram 3(*a*)



This diagram shows that up to 1992 the production ceiling will be derived from the original trend line. At that time the trend line growth rate falls below 3.0 per cent. Two amounts are then calculated, one based on the trend line increasing at 3 per cent and one based on the original trend line in accordance with the safeguard clause. In this case, the amount based on the trend line increasing at 3 per cent is the lower one until 1999 when the amount based on the original trend line in accordance with the safeguard clause becomes the lower one.

Diagram 3(*b*)



This diagram shows that up to 1992 the production ceiling will be derived from the original trend line. At that time the trend line growth rate falls below 3.0 per cent. Two amounts are then calculated, one based on the trend line increase at 3.0 per cent and one based on the original trend line in accordance with the safeguard clause. In this case, the amount based on the trend line increase at 3.0 per cent is the lower one until 1997 when the amount based on the original trend line, in accordance with the safeguard clause, becomes the lower one (one anomaly — 1994).

ANNEX II

Table 1. World consumption of nickel: 1964 – 1979

Year	World consumption of nickel (thousand metric tons)
1964	401.7
1965	431.0
1966	467.5
1967	472.9
1968	490.2
1969	502.8
1970	576.6
1971	526.6
1972	580.1
1973	657.5
1974	710.7
1975	577.2
1976	666.3
1977	643.0
1978	701.3
1979	782.6

Sources: 1964-1968: Metallgeselschaft Aktiengesellschaft. Metal statistics 1964-1974: Frankfurt Am Main, Metallgesellschaft AG., 1975, 63rd ed. 1969-1979: *ibid.* Metal statistics 1969-1979. Frankfurt Am Main, Metallgesellschaft AG., 1980, 67th ed.

Note: The figures are slightly different from those in Table 1 of the report of the technical experts, of negotiating group 1, because for the present table, the figures were collected from the latest edition of Metal Statistics presenting the data for the relevant years.

Table 2. Substitute data for world consumption of nickel: 1980-2004

	Obtained by applying a growth rate of the following percentages on the trend line value for 1979:					
Year	*2.0*	*3.0*	*3.5*	*4.0*	*4.5*	*5.0*
1980	764.0	771.5	775.2	779.0	782.7	786.4
1981	779.3	794.6	802.3	810.2	817.9	825.7
1982	794.9	818.4	830.4	842.6	854.7	867.0
1983	810.8	843.0	859.5	876.3	893.2	910.4
1984	827.0	868.3	889.6	911.4	933.4	955.9
1985	843.5	894.3	920.7	947.9	975.4	1003.7
1986	860.4	921.1	952.9	985.8	1019.3	1053.9
1987	877.6	948.7	986.2	1025.2	1065.2	1106.6
1988	895.2	977.2	1020.7	1066.2	1113.1	1161.9
1989	913.1	1006.5	1056.4	1108.8	1163.2	1220.0
1990	931.4	1036.7	1093.4	1153.2	1215.5	1281.0
1991	950.0	1067.8	1131.7	1199.3	1270.2	1345.0
1992	969.0	1099.8	1171.3	1247.3	1327.4	1412.2
1993	988.4	1132.8	1212.3	1297.2	1387.1	1482.8
1994	1008.2	1166.8	1254.7	1349.1	1449.5	1556.9
1995	1028.4	1201.8	1298.6	1403.1	1514.7	1634.7
1996	1049.0	1237.9	1344.1	1459.2	1582.9	1716.4
1997	1070.0	1275.0	1391.1	1517.6	1654.1	1802.2
1998	1091.4	1313.2	1439.8	1578.3	1728.5	1892.3
1999	1113.2	1352.6	1490.2	1641.4	1806.3	1986.9
2000	1135.5	1393.2	1542.4	1707.1	1887.6	2086.2
2001	1158.2	1435.0	1596.4	1775.4	1972.5	2190.5
2002	1181.4	1478.0	1652.3	1846.4	2061.3	2300.0
2003	1205.0	1522.3	1710.1	1920.3	2154.1	2415.0
2004	1229.1	1568.0	1770.0	1997.1	2251.0	2535.8

TABLE 3. YEAR IMMEDIATELY PRIOR TO THE COMMENCEMENT OF THE INTERIM PERIOD AND YEAR IMMEDIATELY PRIOR TO THE YEAR OF THE EARLIEST COMMERCIAL PRODUCTION AS DERIVED FROM THE ASSUMED YEAR OF THE EARLIEST COMMERCIAL PRODUCTION

Assumed year of the earliest commercial production	(1)	1985	1988	1991	1995
Year immediately prior to the year of the earliest commercial production (Row 1-1)	(2)	1984	1987	1990	1994
Year immediately prior to the commencement of the interim period ((Row 1-5) - 1)	(3)	1979	1982	1985	1989

TABLE 4. CALCULATION OF THE PRODUCTION CEILING FOR YEARS 1985-2004

CASE A. SUBSTITUTES FOR ACTUAL NICKEL CONSUMPTION DATA FOR 1980-2004 OBTAINED BY APPLYING A GROWTH RATE OF 2.0 PER CENT ON THE TREND LINE VALUE FOR 1979

Case Aa: year of the earliest commercial production 1985

Year for which the production ceiling is calculated (1)	Year in which the production ceiling is calculated (Same for cases A-F) (2)	15-year period from the data of which original trend line is derived (Same for cases A-F) (3)	Annual rate of increase of the original trend line (per cent) (4)	Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons) (5)	Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1979 (thousand metric tons) (6)	Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1984 (thousand metric tons) (7)	Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Aa-Ad) (thousand metric tons) (8)	Production ceiling if the annual rate of increase of the original trend line is > 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons) (9)	Value on the trend line increasing at 3 per cent annually: For the year prior to the commencement of the interim period, i.e., for 1979 (thousand metric tons) (10)	Value on the trend line increasing at 3 per cent annually: For the year prior to the year of the earliest commercial production, i.e., for 1984 (thousand metric tons) (11)	Value on the trend line increasing at 3 per cent annually: For the year for which the production ceiling is calculated (same for cases Aa-Ad) (thousand metric tons) (12)	(Col. 11-Col. 10) + 60 per cent of (Col. 12-Col. 11) (thousand metric tons) (13)	Difference between the values on the original trend line for the year for which the production ceiling is calculated and the year prior to the commencement of the interim period (Col. 8 - 6) (thousand metric tons) (14)	Production ceiling, if the annual rate of increase of the original trend line is < 3.0 per cent (Col. 13 or Col. 14, whichever is lower) (thousand metric tons) (15)
1985	1980	1964-1978	3.8	424.3	745.7	899.9	934.4	174.9						
1986	1981	1965-1979	3.8	444.7	749.0	902.3	972.0	195.1						
1987	1982	1966-1980	3.7	466.3	743.7	890.0	991.2	207.0						
1988	1983	1967-1981	3.6	484.3	740.3	883.5	1017.7	223.7						
1989	1984	1968-1982	3.4	506.9	735.2	870.5	1030.8	231.5						
1990	1985	1969-1983	3.2	531.1	730.8	857.3	1038.2	235.0						
1991	1986	1970-1984	3.0	558.6	728.1	843.7	1036.8	231.5						
1992	1987	1971-1985	3.0	572.3	725.3	841.0	1065.9	250.6						
1993	1988	1972-1986	2.7	605.1	727.6	829.9	1051.8		744.2	862.7	1125.6	276.2	324.2	276.2
1994	1989	1973-1987	2.5	629.9	729.8	825.1	1054.6		752.1	871.9	1171.8	299.7	324.8	299.7
1995	1990	1974-1988	2.6	639.3	725.7	823.8	1088.8		741.1	859.2	1189.3	316.2	363.1	316.2
1996	1991	1975-1989	2.8	639.1	714.3	820.7	1145.4		719.3	833.9	1188.9	327.6	431.1	327.6
1997	1992	1976-1990	2.4	678.2	728.5	820.8	1119.4		741.1	859.1	1261.6	359.5	390.9	359.5
1998	1993	1977-1991	2.3	699.4	732.1	820.7	1129.8		742.0	860.2	1301.1	382.7	397.7	382.7
1999	1994	1978-1992	2.0	733.1	748.0	826.7	1116.3		755.1	875.4	1363.8	413.3	368.3	368.3
2000	1995	1979-1993	1.9	757.0	757.0	831.2	1121.4		757.0	877.6	1408.3	439.0	364.4	364.4
2001	1996	1980-1994	2.0	764.0	749.0	827.0	1158.2		741.7	859.9	1421.3	455.0	409.2	409.2
2002	1997	1981-1995	2.0	779.3	749.0	827.0	1181.4		734.6	851.6	1449.8	475.9	432.4	432.4
2003	1998	1982-1996	2.0	794.9	749.0	827.0	1205.0		727.4	843.3	1478.7	497.1	456.0	456.0
2004	1999	1983-1997	2.0	810.8	749.0	827.0	1229.1		720.4	835.1	1508.3	518.6	480.1	480.1

Case Ab: year of the earliest commercial production 1988

Year for which the production ceiling is calculated (1)	Year in which the production ceiling is calculated (Same for cases A-F) (2)	15-year period from the data of which original trend line is derived (Same for cases A-F) (3)	Annual rate of increase of the original trend line (per cent) (4)	Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons) (5)	Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1982 (thousand metric tons) (6)	Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1987 (thousand metric tons) (7)	Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Aa-Ad) (thousand metric tons) (8)	Production ceiling if the annual rate of increase of the original trend line is > 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons) (9)	Value on the trend line increasing at 3 per cent annually: For the year prior to the commencement of the interim period, i.e., for 1982 (thousand metric tons) (10)	Value on the trend line increasing at 3 per cent annually: For the year prior to the year of the earliest commercial production, i.e., for 1987 (thousand metric tons) (11)	Value on the trend line increasing at 3 per cent annually: For the year for which the production ceiling is calculated (same for cases Aa-Ad) (thousand metric tons) (12)	(Col. 11-Col. 10) + 60 per cent of (Col. 12-Col. 11) (thousand metric tons) (13)	Difference between the values on the original trend line for the year for which the production ceiling is calculated and the year prior to the commencement of the interim period (Col. 8 - 6) (thousand metric tons) (14)	Production ceiling, if the annual rate of increase of the original trend line is < 3.0 per cent (Col. 13 or Col. 14, whichever is lower) (thousand metric tons) (15)
1988	1983	1967-1981	3.6	484.3	823.1	982.3	1017.7	180.4						
1989	1984	1968-1982	3.4	506.9	813.6	963.4	1030.8	190.2						
1990	1985	1969-1983	3.2	531.1	804.3	943.4	1038.2	196.0						
1991	1986	1970-1984	3.0	558.6	795.4	921.6	1036.8	195.3						
1992	1987	1971-1985	3.0	572.3	792.7	919.2	1065.9	214.5						
1993	1988	1972-1986	2.7	605.1	787.3	898.1	1051.8		813.2	942.7	1125.6	239.2	264.5	239.2
1994	1989	1973-1987	2.5	629.9	785.6	888.1	1054.6		821.8	952.7	1171.8	262.4	269.0	262.4
1995	1990	1974-1988	2.6	639.3	783.1	888.9	1088.8		809.8	938.9	1189.3	279.3	305.7	279.3
1996	1991	1975-1989	2.8	639.1	776.3	892.0	1145.4		786.0	911.2	1188.9	291.8	369.1	291.8
1997	1992	1976-1990	2.4	678.2	782.6	881.8	1119.4		809.8	938.8	1261.6	322.7	336.8	322.7
1998	1993	1977-1991	2.3	699.4	784.0	878.9	1129.8		810.8	940.0	1301.1	345.9	345.8	345.8
1999	1994	1978-1992	2.0	733.1	794.3	877.9	1116.3		825.1	956.6	1363.8	375.8	322.0	322.0
2000	1995	1979-1993	1.9	757.0	800.7	879.2	1121.4		827.2	959.0	1408.3	401.4	320.7	320.7
2001	1996	1980-1994	2.0	764.0	794.9	877.6	1158.2		810.5	939.6	1421.3	418.1	363.3	363.3
2002	1997	1981-1995	2.0	779.3	794.9	877.6	1181.4		802.7	930.6	1449.8	439.4	386.5	386.5
2003	1998	1982-1996	2.0	794.9	794.9	877.6	1205.0		794.9	921.5	1478.7	461.0	410.1	410.1
2004	1999	1983-1997	2.0	810.8	794.9	877.6	1229.1		787.2	912.5	1508.3	482.8	434.2	434.2

List of Documents

Case Ac: year of the earliest commercial production 1991

Year for which the production ceiling is calculated (1)	Year in which the production ceiling is calculated (Same for cases A-F) (2)	15-year period from the data of which original trend line is derived (Same for cases A-F) (3)	Annual rate of increase of the original trend line (per cent) (4)	Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons) (5)	Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1985 (thousand metric tons) (6)	Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1990 (thousand metric tons) (7)	Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Aa-Ad) (thousand metric tons) (8)	Production ceiling if the annual rate of increase of the original trend line is $>$ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons) (9)	Value on the trend line increasing at 3 per cent annually: For the year prior to the commencement of the interim period, i.e., for 1985 (thousand metric tons) (10)	Value on the trend line increasing at 3 per cent annually: For the year prior to the year of the earliest commercial production, i.e., for 1990 (thousand metric tons) (11)	Value on the trend line increasing at 3 per cent annually: For the year for which the production ceiling is calculated (same for cases Aa-Ad) (thousand metric tons) (12)	(Col. 11-Col. 10) + 60 per cent of (Col. 12-Col. 11) (thousand metric tons) (13)	Difference between the values on the original trend line for the year for which the production ceiling is calculated and the year prior to the commencement of the interim period (Col. 8 - 6) (thousand metric tons) (14)	Production ceiling, if the annual rate of increase of the original trend line is $<$ 3.0 per cent (Col. 13 or Col. 14, whichever is lower) (thousand metric tons) (15)
1991	1986	1970-1984	3.0	558.6	868.9	1006.7	1036.8	155.9						
1992	1987	1971-1985	3.0	572.3	866.3	1004.6	1065.9	175.1						
1993	1988	1972-1986	2.7	605.1	852.0	971.9	1051.8		888.6	1030.1	1125.6	*198.8*	199.8	198.8
1994	1989	1973-1987	2.5	629.9	845.6	956.0	1054.6		898.1	1041.0	1171.8	221.4	*209.0*	209.0
1995	1990	1974-1988	2.6	639.3	844.9	959.1	1088.8		885.0	1026.0	1189.3	*239.0*	243.9	239.0
1996	1991	1975-1989	2.8	639.1	843.8	969.5	1145.4		858.9	995.7	1188.9	*252.7*	301.6	252.7
1997	1992	1976-1990	2.4	678.2	840.7	947.2	1119.4		884.9	1025.9	1261.6	282.4	*278.7*	278.7
1998	1993	1977-1991	2.3	699.4	839.6	941.2	1129.8		886.0	1027.2	1301.1	305.5	*290.2*	290.2
1999	1994	1978-1992	2.0	733.1	843.4	932.2	1116.3		901.7	1045.3	1363.8	334.7	*272.9*	272.9
2000	1995	1979-1993	1.9	757.0	846.9	930.0	1121.4		903.9	1047.9	1408.3	360.2	*274.5*	274.5
2001	1996	1980-1994	2.0	764.0	843.5	931.4	1158.2		885.7	1026.7	1421.3	377.8	*314.7*	314.7
2002	1997	1981-1995	2.0	779.3	843.5	931.4	1181.4		877.1	1016.9	1449.8	399.5	*337.9*	337.9
2003	1998	1982-1996	2.0	794.9	843.5	931.4	1205.0		868.6	1006.9	1478.7	421.4	*361.5*	361.5
2004	1999	1983-1997	2.0	810.8	843.5	931.4	1229.1		860.2	997.1	1508.3	443.6	*385.6*	385.6

Case Ad: year of the earliest commercial production 1995

Year for which the production ceiling is calculated (1)	Year in which the production ceiling is calculated (Same for cases A-F) (2)	15-year period from the data of which original trend line is derived (Same for cases A-F) (3)	Annual rate of increase of the original trend line (per cent) (4)	Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons) (5)	Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1989 (thousand metric tons) (6)	Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1994 (thousand metric tons) (7)	Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Aa-Ad) (thousand metric tons) (8)	Production ceiling if the annual rate of increase of the original trend line is ➤3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons) (9)	Value on the trend line increasing at 3 per cent annually: For the year prior to the commencement of the interim period, i.e., for 1989 (thousand metric tons) (10)	For the year prior to the year of the earliest commercial production, i.e., for 1994 (thousand metric tons) (11)	For the year for which the production ceiling is calculated (same for cases Aa-Ad) (thousand metric tons) (12)	(Col. 11-Col. 10) + 60 per cent of (Col. 12-Col. 11) (thousand metric tons) (13)	Difference between the values on the original trend line for the year for which the production ceiling is calculated and the year prior to the commencement of the interim period (Col. 8 - 6) (thousand metric tons) (14)	Production ceiling, if the annual rate of increase of the original trend line is ◀3.0 per cent (Col. 13 or Col. 14, whichever is lower) (thousand metric tons) (15)
1995	1990	1974-1988	2.6	639.3	935.1	1061.5	1088.8		996.1	1154.8	1189.3	179.4	*153.7*	153.7
1996	1991	1975-1989	2.8	639.1	943.0	1083.5	1145.5		966.7	1120.7	1188.9	*194.9*	202.4	194.9
1997	1992	1976-1990	2.4	678.2	924.9	1042.1	1119.4		996.0	1154.7	1261.6	222.8	*194.5*	194.5
1998	1993	1977-1991	2.3	699.4	919.9	1031.2	1129.8		997.3	1156.1	1301.1	245.8	*209.9*	209.9
1999	1994	1978-1992	2.0	733.1	913.7	1009.9	1116.3		1014.9	1176.5	1363.8	274.0	*202.6*	202.6
2000	1995	1979-1993	1.9	757.0	912.8	1002.3	1121.4		1017.4	1179.4	1408.3	299.3	*208.6*	208.6
2001	1996	1980-1994	2.0	764.0	913.1	1008.2	1158.2		996.8	1155.6	1421.3	318.2	*245.1*	245.1
2002	1997	1981-1995	2.0	779.3	913.1	1008.2	1181.4		987.3	1144.5	1449.8	340.4	*268.3*	268.3
2003	1998	1982-1996	2.0	794.9	913.1	1008.2	1205.0		977.6	1133.3	1478.7	362.9	*291.9*	291.9
2004	1999	1983-1997	2.0	810.8	913.1	1008.2	1229.1		968.1	1122.2	1508.3	385.8	*316.0*	316.0

TABLE 4 (*continued*)

CASE B. SUBSTITUTES FOR ACTUAL NICKEL CONSUMPTION DATA FOR 1980-2004 OBTAINED BY APPLYING A GROWTH RATE OF 3.0 PER CENT ON THE TREND LINE VALUE FOR 1979

Case Ba: year of the earliest commercial production 1985

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1979 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1984 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ba-Bd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1985	1980	1964-1978	3.8	424.3	745.7	899.9	934.4	174.9
1986	1981	1965-1979	3.8	444.7	749.0	902.3	972.0	195.1
1987	1982	1966-1980	3.7	465.8	745.3	893.0	995.3	209.1
1988	1983	1967-1981	3.7	482.9	744.3	891.4	1029.6	230.0
1989	1984	1968-1982	3.6	504.2	741.9	884.4	1054.2	244.4
1990	1985	1969-1983	3.5	526.9	740.2	877.4	1075.9	256.3
1991	1986	1970-1984	3.3	552.5	739.6	869.7	1091.2	263.0
1992	1987	1971-1985	3.4	564.6	738.1	872.8	1141.1	295.7
1993	1988	1972-1986	3.2	595.6	740.9	866.0	1146.6	293.5
1994	1989	1973-1987	3.1	618.9	742.7	864.5	1171.5	306.0
1995	1990	1974-1988	3.3	627.7	737.2	865.7	1232.7	348.7
1996	1991	1975-1989	3.6	627.8	723.4	863.6	1321.3	414.8
1997	1992	1976-1990	3.3	667.4	735.2	864.0	1314.6	399.2
1998	1993	1977-1991	3.2	690.6	736.1	863.3	1349.0	418.6
1999	1994	1978-1992	3.0	727.7	749.5	868.7	1352.6	409.5
2000[a]	1995	1979-1993	2.9[a]	757.0	757.0	872.7	1375.9	439.0
2001	1996	1980-1994	3.0	771.5	749.0	868.3	1435.0	459.3
2002	1997	1981-1995	3.0	794.6	749.0	868.3	1478.0	485.1
2003	1998	1982-1996	3.0	818.4	749.0	868.3	1522.3	511.7
2004	1999	1983-1997	3.0	843.0	749.0	868.3	1568.0	539.1

Case Bb: year of the earliest commercial production 1988

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1982 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1987 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ba-Bd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1988	1983	1967-1981	3.7	482.9	829.3	993.2	1029.6	185.7
1989	1984	1968-1982	3.6	504.2	824.4	982.6	1054.2	201.2
1990	1985	1969-1983	3.5	526.9	819.7	971.6	1075.9	214.5
1991	1986	1970-1984	3.3	552.5	815.1	958.5	1091.2	223.0
1992	1987	1971-1985	3.4	564.6	816.2	965.1	1141.1	254.5
1993	1988	1972-1986	3.2	595.6	813.6	950.9	1146.6	254.7
1994	1989	1973-1987	3.1	618.9	813.6	947.0	1171.5	268.1
1995	1990	1974-1988	3.3	627.7	811.8	953.3	1232.7	309.1
1996	1991	1975-1989	3.6	627.8	804.6	960.5	1321.3	372.4
1997	1992	1976-1990	3.3	667.4	810.0	951.9	1314.6	359.5
1998	1993	1977-1991	3.2	690.6	810.0	950.0	1349.0	379.4
1999	1994	1978-1992	3.0	727.7	818.9	949.2	1352.6	372.3
2000[a]	1995	1979-1993	2.9[a]	757.0	824.4	950.5	1375.9	401.3
2001	1996	1980-1994	3.0	771.5	818.4	948.7	1435.0	422.1
2002	1997	1981-1995	3.0	794.6	818.4	948.7	1478.0	447.9
2003	1998	1982-1996	3.0	818.4	818.4	948.7	1522.3	474.5
2004	1999	1983-1997	3.0	843.0	818.4	948.7	1568.0	501.9

Case Bc: year of the earliest commercial production 1991

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1985 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1990 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ba-Bd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is $\ngtr$ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1991	1986	1970-1984	3.3	552.5	898.4	1056.4	1091.2	178.9
1992	1987	1971-1985	3.4	564.6	902.5	1067.1	1141.1	209.0
1993	1988	1972-1986	3.2	595.6	893.4	1044.2	1146.6	212.2
1994	1989	1973-1987	3.1	618.9	891.2	1037.4	1171.5	226.7
1995	1990	1974-1988	3.3	627.7	893.9	1049.7	1232.7	265.6
1996	1991	1975-1989	3.6	627.8	894.8	1068.2	1321.3	325.3
1997	1992	1976-1990	3.3	667.4	892.4	1048.7	1314.6	315.8
1998	1993	1977-1991	3.2	690.6	891.3	1045.3	1349.0	336.2
1999	1994	1978-1992	3.0	727.7	894.7	1037.0	1352.6	331.7
2000[a]	1995	1979-1993	2.9[a]	757.0	897.9	1035.2	1375.9	360.2
2001	1996	1980-1994	3.0	771.5	894.3	1036.7	1435.0	381.4
2002	1997	1981-1995	3.0	794.6	894.3	1036.7	1478.0	407.2
2003	1998	1982-1996	3.0	818.4	894.3	1036.7	1522.3	433.8
2004	1999	1983-1997	3.0	843.0	894.3	1036.7	1568.0	461.2

Case Bd: year of the earliest commercial production 1995

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1989 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1994 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ba-Bd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is $\ngtr$ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1995	1990	1974-1988	3.3	627.7	1016.5	1193.7	1232.7	200.6
1996	1991	1975-1989	3.6	627.8	1031.0	1230.9	1321.3	254.1
1997	1992	1976-1990	3.3	667.4	1015.4	1193.2	1314.6	250.6
1998	1993	1977-1991	3.2	690.6	1012.5	1187.5	1349.0	271.9
1999	1994	1978-1992	3.0	727.7	1006.9	1167.0	1352.6	271.5
2000[a]	1995	1979-1993	2.9[a]	757.0	1006.1	1159.9	1375.9	299.4
2001	1996	1980-1994	3.0	771.5	1006.5	1166.8	1435.0	321.2
2002	1997	1981-1995	3.0	794.6	1006.5	1166.8	1478.0	347.0
2003	1998	1982-1996	3.0	818.4	1006.5	1166.8	1522.3	373.6
2004	1999	1983-1997	3.0	843.0	1006.5	1166.8	1568.0	401.0

CASE C. SUBSTITUTES FOR ACTUAL NICKEL CONSUMPTION DATA FOR 1980-2004 OBTAINED BY APPLYING A GROWTH RATE OF 3.5 PER CENT ON THE TREND LINE FOR 1979

Case Ca: year of the earliest commercial production 1985

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1979 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1984 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ca-Cd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1985..........	1980	1964-1978	3.8	424.3	745.7	899.9	934.4	174.9
1986..........	1981	1965-1979	3.8	444.7	749.0	902.3	972.0	195.1
1987..........	1982	1966-1980	3.7	465.6	746.1	894.5	997.3	210.1
1988..........	1983	1967-1981	3.7	482.2	746.3	895.3	1035.6	233.2
1989..........	1984	1968-1982	3.6	502.8	745.3	891.3	1065.9	250.8
1990..........	1985	1969-1983	3.6	524.7	744.9	887.5	1095.2	267.2
1991..........	1986	1970-1984	3.4	549.5	745.4	883.0	1119.3	279.4
1992..........	1987	1971-1985	3.6	560.7	744.6	889.0	1180.5	319.3
1993..........	1988	1972-1986	3.4	590.9	747.6	884.5	1197.0	324.4
1994..........	1989	1973-1987	3.4	613.5	749.2	884.9	1234.5	345.5
1995..........	1990	1974-1988	3.6	622.1	742.9	887.3	1311.2	398.7
1996..........	1991	1975-1989	4.0	622.3	728.0	885.8	1418.5	477.4
1997..........	1992	1976-1990	3.7	662.1	738.6	886.3	1423.9	470.3
1998..........	1993	1977-1991	3.7	686.3	738.1	885.3	1473.3	500.0
1999..........	1994	1978-1992	3.5	725.1	750.3	890.4	1488.1	498.7
2000..........	1995	1979-1993	3.4	757.0	757.0	894.1	1523.2	514.6
2001..........	1996	1980-1994	3.5	775.2	749.0	889.5	1596.2	564.5
2002..........	1997	1981-1995	3.5	802.3	749.0	889.5	1652.1	598.1
2003..........	1998	1982-1996	3.5	830.4	749.0	889.5	1709.9	632.7
2004..........	1999	1983-1997	3.5	859.5	749.0	889.5	1769.8	668.7

Case Cb: year of the earliest commercial production 1988

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1982 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1987 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ca-Cd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1988..........	1983	1967-1981	3.7	482.2	832.4	998.6	1035.6	188.4
1989..........	1984	1968-1982	3.6	502.8	829.8	992.3	1065.9	206.7
1990..........	1985	1969-1983	3.6	524.7	827.5	985.9	1095.2	224.0
1991..........	1986	1970-1984	3.4	549.5	825.1	977.4	1119.3	237.4
1992..........	1987	1971-1985	3.6	560.7	828.1	988.7	1180.5	275.7
1993..........	1988	1972-1986	3.4	590.9	827.0	978.4	1197.0	282.6
1994..........	1989	1973-1987	3.4	613.5	827.9	977.8	1234.5	303.9
1995..........	1990	1974-1988	3.6	622.1	826.4	987.0	1311.2	355.1
1996..........	1991	1975-1989	4.0	622.3	819.0	996.5	1418.5	430.7
1997..........	1992	1976-1990	3.7	662.1	824.0	988.8	1423.9	425.9
1998..........	1993	1977-1991	3.7	686.3	823.2	987.4	1473.3	455.7
1999..........	1994	1978-1992	3.5	725.1	831.5	986.7	1488.1	456.0
2000..........	1995	1979-1993	3.4	757.0	836.5	988.0	1523.2	472.6
2001..........	1996	1980-1994	3.5	775.2	830.4	986.2	1596.2	521.8
2002..........	1997	1981-1995	3.5	802.3	830.4	986.2	1652.1	555.3
2003..........	1998	1982-1996	3.5	830.4	830.4	986.2	1709.9	590.0
2004..........	1999	1983-1997	3.5	859.5	830.4	986.2	1769.8	626.0

List of Documents

Case Cc: year of the earliest commercial production 1991

Year for which the production ceiling is calculated (1)	Year in which the production ceiling is calculated (Same for cases A-F) (2)	15-year period from the data of which original trend line is derived (Same for cases A-F) (3)	Annual rate of increase of the original trend line (per cent) (4)	Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons) (5)	Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1985 (thousand metric tons) (6)	Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1990 (thousand metric tons) (7)	Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ca-Cd) (thousand metric tons) (8)	Production ceiling if the annual rate of increase of the original trend line is > 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons) (9)
1991	1986	1970-1984	3.4	549.5	913.4	1082.0	1119.3	191.0
1992	1987	1971-1985	3.6	560.7	921.1	1099.7	1180.5	227.1
1993	1988	1972-1986	3.4	590.9	914.7	1082.2	1197.0	236.4
1994	1989	1973-1987	3.4	613.5	914.8	1080.5	1234.5	258.1
1995	1990	1974-1988	3.6	622.1	919.3	1098.0	1311.2	306.6
1996	1991	1975-1989	4.0	622.3	921.3	1121.0	1418.5	378.2
1997	1992	1976-1990	3.7	662.1	919.3	1103.1	1423.9	376.3
1998	1993	1977-1991	3.7	686.3	918.1	1101.3	1473.3	406.4
1999	1994	1978-1992	3.5	725.1	921.4	1093.5	1488.1	408.9
2000	1995	1979-1993	3.4	757.0	924.4	1091.8	1523.2	426.2
2001	1996	1980-1994	3.5	775.2	920.7	1093.4	1596.2	477.4
2002	1997	1981-1995	3.5	802.3	920.7	1093.4	1652.1	507.9
2003	1998	1982-1996	3.5	830.4	920.7	1093.4	1709.9	542.6
2004	1999	1983-1997	3.5	859.5	920.7	1093.4	1769.8	578.5

Case Cd: year of the earliest commercial production 1995

Year for which the production ceiling is calculated (1)	Year in which the production ceiling is calculated (Same for cases A-F) (2)	15-year period from the data of which original trend line is derived (Same for cases A-F) (3)	Annual rate of increase of the original trend line (per cent) (4)	Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons) (5)	Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1989 (thousand metric tons) (6)	Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1994 (thousand metric tons) (7)	Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ca-Cd) (thousand metric tons) (8)	Production ceiling if the annual rate of increase of the original trend line is > 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons) (9)
1995	1990	1974-1988	3.6	622.1	1059.6	1265.5	1311.2	233.3
1996	1991	1975-1989	4.0	622.3	1077.8	1311.5	1418.5	297.9
1997	1992	1976-1990	3.7	662.1	1063.6	1276.4	1423.9	301.3
1998	1993	1977-1991	3.7	686.3	1061.9	1273.7	1473.3	331.6
1999	1994	1978-1992	3.5	725.1	1056.7	1254.0	1488.1	337.8
2000	1995	1979-1993	3.4	757.0	1056.1	1247.4	1523.2	356.8
2001	1996	1980-1994	3.5	775.2	1056.5	1254.7	1596.2	403.1
2002	1997	1981-1995	3.5	802.3	1056.5	1254.7	1652.1	436.6
2003	1998	1982-1996	3.5	830.4	1056.5	1254.7	1709.9	471.3
2004	1999	1983-1997	3.5	859.5	1056.5	1254.7	1769.8	507.3

CASE D. SUBSTITUTES FOR ACTUAL NICKEL CONSUMPTION DATA FOR 1980-2004 OBTAINED BY APPLYING A GROWTH RATE OF 4.0 PER CENT ON THE TREND LINE VALUE FOR 1979

Case Da: year of the earliest commercial production 1985

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1979 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production i.e., for 1984 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Da-Dd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1985	1980	1964-1978	3.8	424.3	745.7	899.9	934.4	174.9
1986	1981	1965-1979	3.8	444.7	749.0	902.3	972.0	195.1
1987	1982	1966-1980	3.7	465.3	746.9	895.9	999.3	211.0
1988	1983	1967-1981	3.7	481.5	748.4	899.3	1041.7	236.3
1989	1984	1968-1982	3.7	501.5	748.8	898.4	1078.0	257.4
1990	1985	1969-1983	3.7	522.6	749.7	897.9	1114.9	278.4
1991	1986	1970-1984	3.6	546.5	751.2	896.5	1148.2	296.3
1992	1987	1971-1985	3.8	556.9	751.1	905.5	1221.2	343.8
1993	1988	1972-1986	3.7	586.2	754.4	903.4	1249.6	356.7
1994	1989	1973-1987	3.7	608.2	755.8	905.7	1300.8	387.0
1995	1990	1974-1988	4.0	616.5	748.7	909.4	1394.9	452.0
1996	1991	1975-1989	4.4	616.8	732.7	908.6	1523.0	544.5
1997	1992	1976-1990	4.1	656.8	742.0	909.2	1542.4	547.1
1998	1993	1977-1991	4.2	682.0	740.1	907.9	1608.9	588.4
1999	1994	1978-1992	4.0	722.4	751.1	912.7	1637.0	596.2
2000	1995	1979-1993	3.9	757.0	757.0	916.0	1686.0	621.0
2001	1996	1980-1994	4.0	779.0	749.0	911.4	1775.4	680.8
2002	1997	1981-1995	4.0	810.2	749.0	911.4	1846.4	723.4
2003	1998	1982-1996	4.0	842.6	749.0	911.4	1920.3	767.7
2004	1999	1983-1997	4.0	876.3	749.0	911.4	1997.1	813.8

Case Db: year of the earliest commercial production 1988

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1982 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production i.e., for 1987 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Da-Dd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1988	1983	1967-1981	3.7	481.5	835.6	1004.1	1041.7	191.1
1989	1984	1968-1982	3.7	501.5	835.3	1002.2	1078.0	212.4
1990	1985	1969-1983	3.7	522.6	835.3	1000.5	1114.9	233.9
1991	1986	1970-1984	3.6	546.5	835.3	996.8	1148.2	252.3
1992	1987	1971-1985	3.8	556.9	840.3	1013.0	1221.2	297.6
1993	1988	1972-1986	3.7	586.2	840.6	1006.6	1249.6	311.8
1994	1989	1973-1987	3.7	608.2	842.5	1009.7	1300.8	341.9
1995	1990	1974-1988	4.0	616.5	841.4	1022.0	1394.9	404.3
1996	1991	1975-1989	4.4	616.8	833.7	1033.9	1523.0	493.7
1997	1992	1976-1990	4.1	656.8	838.2	1027.2	1542.4	498.1
1998	1993	1977-1991	4.2	682.0	836.7	1026.3	1608.9	539.2
1999	1994	1978-1992	4.0	722.4	844.3	1025.8	1637.0	548.2
2000	1995	1979-1993	3.9	757.0	848.8	1027.1	1686.0	573.6
2001	1996	1980-1994	4.0	779.0	842.6	1025.2	1775.4	632.7
2002	1997	1981-1995	4.0	810.2	842.6	1025.2	1846.4	675.3
2003	1998	1982-1996	4.0	842.6	842.6	1025.2	1920.3	719.7
2004	1999	1983-1997	4.0	876.3	842.6	1025.2	1997.1	765.7

Case Dc: year of the earliest commercial production 1991

Year for which the production ceiling is calculated (1)	Year in which the production ceiling is calculated (Same for cases A-F) (2)	15-year period from the data of which original trend line is derived (Same for cases A-F) (3)	Annual rate of increase of the original trend line (per cent) (4)	Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons) (5)	Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1985 (thousand metric tons) (6)	Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1990 (thousand metric tons) (7)	Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Da-Dd) (thousand metric tons) (8)	Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons) (9)
1991..........	1986	1970-1984	3.6	546.5	928.7	1108.3	1148.2	203.5
1992..........	1987	1971-1985	3.8	556.9	940.0	1133.2	1221.2	246.0
1993..........	1988	1972-1986	3.7	586.2	936.6	1121.5	1249.6	261.8
1994..........	1989	1973-1987	3.7	608.2	939.1	1125.5	1300.8	291.6
1995..........	1990	1974-1988	4.0	616.5	945.5	1148.4	1394.9	350.8
1996..........	1991	1975-1989	4.4	616.8	948.6	1176.4	1523.0	435.8
1997..........	1992	1976-1990	4.1	656.8	947.0	1160.4	1542.4	442.6
1998..........	1993	1977-1991	4.2	682.0	945.8	1160.2	1608.9	483.6
1999..........	1994	1978-1992	4.0	722.4	948.9	1152.9	1637.0	494.5
2000..........	1995	1979-1993	3.9	757.0	951.6	1151.5	1686.0	520.6
2001..........	1996	1980-1994	4.0	779.0	947.9	1153.2	1775.4	578.6
2002..........	1997	1981-1995	4.0	810.2	947.9	1153.2	1846.4	621.2
2003..........	1998	1982-1996	4.0	842.6	947.9	1153.2	1920.3	665.6
2004..........	1999	1983-1997	4.0	876.3	947.9	1153.2	1997.1	711.6

Case Dd: year of the earliest commercial production 1995

Year for which the production ceiling is calculated (1)	Year in which the production ceiling is calculated (Same for cases A-F) (2)	15-year period from the data of which original trend line is derived (Same for cases A-F) (3)	Annual rate of increase of the original trend line (per cent) (4)	Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons) (5)	Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1989 (thousand metric tons) (6)	Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1994 (thousand metric tons) (7)	Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Da-Dd) (thousand metric tons) (8)	Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons) (9)
1995..........	1990	1974-1988	4.0	616.5	1104.6	1341.7	1394.9	269.0
1996..........	1991	1975-1989	4.4	616.8	1126.8	1397.4	1523.0	346.0
1997..........	1992	1976-1990	4.1	656.8	1114.2	1365.3	1542.4	357.4
1998..........	1993	1977-1991	4.2	682.0	1113.8	1366.3	1608.9	398.1
1999..........	1994	1978-1992	4.0	722.4	1108.9	1347.3	1637.0	412.2
2000..........	1995	1979-1993	3.9	757.0	1108.4	1341.2	1686.0	439.7
2001..........	1996	1980-1994	4.0	779.0	1108.8	1349.1	1775.4	496.1
2002..........	1997	1981-1995	4.0	810.2	1108.8	1349.1	1846.4	538.7
2003..........	1998	1982-1996	4.0	842.6	1108.8	1349.1	1920.3	583.0
2004..........	1999	1983-1997	4.0	876.3	1108.8	1349.1	1997.1	629.1

CASE E. SUBSTITUTES FOR ACTUAL NICKEL CONSUMPTION DATA FOR 1980-2004 OBTAINED BY APPLYING A GROWTH RATE OF 4.5 PER CENT ON THE TREND LINE VALUE FOR 1979

Case Ea: year of the earliest commercial production 1985

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1979 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1984 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ea-Ed) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is $\geq$ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1985	1980	1964-1978	3.8	424.3	745.7	899.9	934.4	174.9
1986	1981	1965-1979	3.8	444.7	749.0	902.3	972.0	195.1
1987	1982	1966-1980	3.7	465.1	747.6	897.4	1001.3	212.1
1988	1983	1967-1981	3.8	480.8	750.3	903.2	1047.6	239.5
1989	1984	1968-1982	3.8	500.2	752.1	905.3	1089.8	263.9
1990	1985	1969-1983	3.8	520.5	754.4	908.1	1134.5	289.5
1991	1986	1970-1984	3.7	543.6	757.0	909.9	1177.2	313.3
1992	1987	1971-1985	4.0	553.2	757.6	922.2	1262.7	368.9
1993	1988	1972-1986	3.9	581.7	761.2	922.4	1303.6	389.9
1994	1989	1973-1987	4.0	603.0	762.3	926.7	1369.7	430.2
1995	1990	1974-1988	4.3	610.9	754.5	931.8	1482.4	507.7
1996	1991	1975-1989	4.8	611.4	737.3	931.6	1633.7	615.6
1997	1992	1976-1990	4.6	651.6	745.3	932.4	1669.0	629.1
1998	1993	1977-1991	4.6	677.8	742.1	930.7	1755.3	683.4
1999	1994	1978-1992	4.5	719.8	751.9	935.1	1799.1	701.5
2000	1995	1979-1993	4.4	757.0	757.0	938.2	1864.4	736.9
2001	1996	1980-1994	4.5	782.7	749.0	933.4	1972.5	807.9
2002	1997	1981-1995	4.5	817.9	749.0	933.4	2061.3	861.1
2003	1998	1982-1996	4.5	854.7	749.0	933.4	2154.1	916.8
2004	1999	1983-1997	4.5	893.2	749.0	933.4	2251.0	975.0

Case Eb: year of the earliest commercial production 1988

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1982 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1987 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ea-Ed) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is $\geq$ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1988	1983	1967-1981	3.8	480.8	838.6	1009.5	1047.6	193.8
1989	1984	1968-1982	3.8	500.2	840.6	1011.9	1089.8	218.0
1990	1985	1969-1983	3.8	520.5	843.2	1015.0	1134.5	243.5
1991	1986	1970-1984	3.7	543.6	845.4	1016.1	1177.2	267.4
1992	1987	1971-1985	4.0	553.2	852.4	1037.4	1262.7	320.2
1993	1988	1972-1986	3.9	581.7	854.2	1035.1	1303.6	342.0
1994	1989	1973-1987	4.0	603.0	857.1	1042.0	1369.7	381.5
1995	1990	1974-1988	4.3	610.9	856.4	1057.6	1482.4	456.1
1996	1991	1975-1989	4.8	611.4	848.4	1072.1	1633.7	560.7
1997	1992	1976-1990	4.6	651.6	852.5	1066.5	1669.0	575.5
1998	1993	1977-1991	4.6	677.8	850.1	1066.3	1755.3	629.6
1999	1994	1978-1992	4.5	719.8	857.0	1065.9	1799.1	648.8
2000	1995	1979-1993	4.4	757.0	861.0	1067.1	1864.4	684.5
2001	1996	1980-1994	4.5	782.7	854.7	1065.2	1972.5	754.9
2002	1997	1981-1995	4.5	817.9	854.7	1065.2	2061.3	808.2
2003	1998	1982-1996	4.5	854.7	854.7	1065.2	2154.1	863.8
2004	1999	1983-1997	4.5	893.2	854.7	1065.2	2251.0	922.0

Case Ec: year of the earliest commercial production 1991

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1985 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1990 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ea-Ed) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≯ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1991	1986	1970-1984	3.7	543.6	944.0	1134.7	1177.2	216.2
1992	1987	1971-1985	4.0	553.2	959.0	1167.2	1262.7	265.5
1993	1988	1972-1986	3.9	581.7	958.6	1161.6	1303.6	288.2
1994	1989	1973-1987	4.0	603.0	963.6	1171.5	1369.7	326.8
1995	1990	1974-1988	4.3	610.9	972.0	1200.4	1482.4	397.6
1996	1991	1975-1989	4.8	611.4	976.3	1233.7	1633.7	497.4
1997	1992	1976-1990	4.6	651.6	975.1	1219.8	1669.0	514.2
1998	1993	1977-1991	4.6	677.8	973.9	1221.6	1755.3	567.9
1999	1994	1978-1992	4.5	719.8	976.8	1214.9	1799.1	588.6
2000	1995	1979-1993	4.4	757.0	979.3	1213.8	1864.4	624.9
2001	1996	1980-1994	4.5	782.7	975.4	1215.5	1972.5	694.3
2002	1997	1981-1995	4.5	817.9	975.4	1215.5	2061.3	747.6
2003	1998	1982-1996	4.5	854.7	975.4	1215.5	2154.1	803.3
2004	1999	1983-1997	4.5	893.2	975.4	1215.5	2251.0	861.4

Case Ed: year of the earliest commercial production 1995

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1989 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1994 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Ea-Ed) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≯ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1995	1990	1974-1988	4.3	610.9	1150.8	1421.2	1482.4	307.1
1996	1991	1975-1989	4.8	611.4	1177.3	1487.7	1633.7	398.0
1997	1992	1976-1990	4.6	651.6	1166.4	1459.2	1669.0	418.7
1998	1993	1977-1991	4.6	677.8	1167.4	1464.3	1755.3	471.5
1999	1994	1978-1992	4.5	719.8	1163.0	1446.5	1799.1	495.1
2000	1995	1979-1993	4.4	757.0	1162.8	1441.1	1864.4	532.3
2001	1996	1980-1994	4.5	782.7	1163.2	1449.5	1972.5	600.1
2002	1997	1981-1995	4.5	817.9	1163.2	1449.5	2061.3	653.4
2003	1998	1982-1996	4.5	854.7	1163.2	1449.5	2154.1	709.1
2004	1999	1983-1997	4.5	893.2	1163.2	1449.5	2251.0	767.2

CASE F. SUBSTITUTES FOR ACTUAL NICKEL CONSUMPTION DATA FOR 1980-2004 OBTAINED BY APPLYING A GROWTH RATE OF 5.0 PER CENT ON THE TREND LINE VALUE FOR 1979

Case Fa: year of the earliest commercial production 1985

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1979 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1984 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Fa-Fd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1985	1980	1964-1978	3.8	424.3	745.7	899.9	934.4	174.9
1986	1981	1965-1979	3.8	444.7	749.0	902.3	972.0	195.1
1987	1982	1966-1980	3.7	464.8	748.4	898.8	1003.2	213.0
1988	1983	1967-1981	3.8	480.1	752.3	907.1	1053.6	242.7
1989	1984	1968-1982	3.8	498.9	755.5	912.3	1101.8	270.5
1990	1985	1969-1983	3.9	518.5	759.1	918.4	1154.5	301.0
1991	1986	1970-1984	3.9	540.7	762.8	923.6	1207.0	330.8
1992	1987	1971-1985	4.2	549.6	764.1	938.9	1305.5	394.8
1993	1988	1972-1986	4.2	577.1	768.0	941.8	1359.8	424.6
1994	1989	1973-1987	4.3	597.9	768.9	948.2	1442.0	475.6
1995	1990	1974-1988	4.7	605.5	760.3	954.7	1575.3	566.8
1996	1991	1975-1989	5.2	606.1	741.9	955.2	1752.0	691.4
1997	1992	1976-1990	5.0	646.5	748.7	956.1	1805.7	717.2
1998	1993	1977-1991	5.1	673.6	744.0	954.1	1914.5	786.3
1999	1994	1978-1992	4.9	717.2	752.6	958.1	1976.4	816.5
2000	1995	1979-1993	4.9	757.0	757.0	960.8	2060.7	863.7
2001	1996	1980-1994	5.0	786.4	749.0	955.9	2190.8	947.8
2002	1997	1981-1995	5.0	825.7	749.0	955.9	2300.2	1013.5
2003	1998	1982-1996	5.0	867.0	749.0	955.9	2415.0	1082.4
2004	1999	1983-1997	5.0	910.4	749.0	955.9	2535.8	1154.8

Case Fb: year of the earliest commercial production 1988

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1982 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1987 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Fa-Fd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1988	1983	1967-1981	3.8	480.1	841.7	1014.9	1053.6	196.4
1989	1984	1968-1982	3.8	498.9	846.0	1021.7	1101.8	223.8
1990	1985	1969-1983	3.9	518.5	851.0	1029.7	1154.5	253.6
1991	1986	1970-1984	3.9	540.7	855.6	1035.8	1207.0	282.9
1992	1987	1971-1985	4.2	549.6	864.6	1062.4	1305.5	343.7
1993	1988	1972-1986	4.2	577.1	868.0	1064.5	1359.8	373.7
1994	1989	1973-1987	4.3	597.9	871.9	1075.2	1442.0	423.4
1995	1990	1974-1988	4.7	605.5	871.6	1094.4	1575.3	511.3
1996	1991	1975-1989	5.2	606.1	863.3	1111.6	1752.0	632.5
1997	1992	1976-1990	5.0	646.5	867.0	1107.2	1805.7	659.3
1998	1993	1977-1991	5.1	673.6	863.8	1107.7	1914.5	728.0
1999	1994	1978-1992	4.9	717.2	869.9	1107.4	1976.4	758.9
2000	1995	1979-1993	4.9	757.0	873.4	1108.6	2060.7	806.5
2001	1996	1980-1994	5.0	786.4	867.0	1106.6	2190.8	890.1
2002	1997	1981-1995	5.0	825.7	867.0	1106.6	2300.2	955.8
2003	1998	1982-1996	5.0	867.0	867.0	1106.6	2415.0	1024.6
2004	1999	1983-1997	5.0	910.4	867.0	1106.6	2535.8	1097.1

Case Fc: year of the earliest commercial production 1991

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1985 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1990 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Fa-Fd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1991	1986	1970-1984	3.9	540.7	959.6	1161.7	1207.0	229.3
1992	1987	1971-1985	4.2	549.6	978.4	1202.2	1305.5	285.8
1993	1988	1972-1986	4.2	577.1	981.0	1203.1	1359.8	316.1
1994	1989	1973-1987	4.3	597.9	988.8	1219.4	1442.0	364.2
1995	1990	1974-1988	4.7	605.5	999.2	1254.6	1575.3	477.8
1996	1991	1975-1989	5.2	606.1	1004.7	1293.6	1752.0	563.9
1997	1992	1976-1990	5.0	646.5	1004.0	1282.2	1805.7	592.3
1998	1993	1977-1991	5.1	673.6	1002.8	1285.9	1914.5	660.3
1999	1994	1978-1992	4.9	717.2	1005.5	1280.0	1976.4	692.3
2000	1995	1979-1993	4.9	757.0	1007.7	1279.1	2060.7	740.4
2001	1996	1980-1994	5.0	786.4	1003.7	1281.0	2190.8	823.2
2002	1997	1981-1995	5.0	825.7	1003.7	1281.0	2300.2	888.8
2003	1998	1982-1996	5.0	867.0	1003.7	1281.0	2415.0	957.7
2004	1999	1983-1997	5.0	910.4	1003.7	1281.0	2535.8	1030.2

Case Fd: year of the earliest commercial production 1995

Year for which the production ceiling is calculated (1)	*Year in which the production ceiling is calculated (Same for cases A-F)* (2)	*15-year period from the data of which original trend line is derived (Same for cases A-F)* (3)	*Annual rate of increase of the original trend line (per cent)* (4)	*Value on the original trend line for the first year of the relevant 15-year period (thousand metric tons)* (5)	*Value on the original trend line for the year prior to the commencement of the interim period, i.e., for 1989 (thousand metric tons)* (6)	*Value on the original trend line for the year prior to the year of the earliest commercial production, i.e., for 1994 (thousand metric tons)* (7)	*Value on the original trend line for the year for which the production ceiling is calculated (Same for cases Fa-Fd) (thousand metric tons)* (8)	*Production ceiling if the annual rate of increase of the original trend line is ≥ 3.0 per cent (Col. 7-Col. 6) + 60 per cent (Col. 8-Col. 7) (thousand metric tons)* (9)
1995	1990	1974-1988	4.7	605.5	1198.8	1505.2	1575.3	348.5
1996	1991	1975-1989	5.2	606.1	1229.9	1583.5	1752.0	454.7
1997	1992	1976-1990	5.0	646.5	1221.0	1559.3	1805.7	486.1
1998	1993	1977-1991	5.1	673.6	1223.5	1569.1	1914.5	552.8
1999	1994	1978-1992	4.9	717.2	1219.7	1552.6	1976.4	587.2
2000	1995	1979-1993	4.9	757.0	1219.5	1547.9	2060.7	636.1
2001	1996	1980-1994	5.0	786.4	1220.0	1556.9	2190.8	717.2
2002	1997	1981-1995	5.0	825.7	1220.0	1556.9	2300.2	782.9
2003	1998	1982-1996	5.0	867.0	1220.0	1556.9	2415.0	851.8
2004	1999	1983-1997	5.0	910.4	1220.0	1556.9	2525.8	918.2

[a] Since the annual rate of increase of the original trend line is less than 3 per cent, the production ceiling for this year (in all cases Ba-Bd) has been calculated in accordance with article 151, paragraph 2 (*b*)(iv).

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Report of the Chairman of the Drafting Committee

[Original: English]
[2 March 1981]

1. An informal intersessional meeting of the Drafting Committee was held in New York from 12 January to 27 February 1981 in accordance with the decision taken by the Conference at its 141st meeting on 29 August 1980[35] and on the basis of the time-table proposed by the Conference. The meeting was extended to 2 March 1981. The Drafting Committee conducted an article-by-article textual review of the draft convention on the law of the sea (informal text) (A/CONF.62/WP.10/Rev.3, and Corr.1 and 3) and directed its attention in particular to continuing the process of harmonization of words, expressions and terminology recurring in the draft convention, considering drafting and editorial points relating to the draft convention and improving concordance of the Arabic, Chinese, English, French, Russian and Spanish texts of the draft convention.

2. There were 240 meetings of the language groups open to all delegations, 33 meetings of the co-ordinators of the language groups under the direction of the Chairman of the Drafting Committee and 14 meetings of the Drafting Commit-

[35] See *Official Records of the Third United Nations Conference on the Law of the Sea*, vol. XIV (United Nations publication, Sales No. E.82.V.2).