



## Legal and Technical Commission

Distr.: General  
30 July 2003

Original: English

---

### Ninth session

Kingston, Jamaica  
28 July -8 August 2003

## Evaluation of the annual reports submitted by contractors

### Report and recommendations of the Legal and Technical Commission

#### I. Introduction

1. The Legal and Technical Commission met during the ninth session of the International Seabed Authority to consider and evaluate the annual reports of contractors submitted pursuant to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (“the Regulations”). It was noted that the second set of annual reports by contractors was due to be received at the end of March 2003. The Commission was provided with a report prepared by the Secretariat on the status of annual reports received from contractors (ISBA/9/LTC/4 and Add.1).

2. As of 31 March 2003, annual reports had been received from Deep Ocean Resources Development Ltd. (DORD), the State enterprise Yuzhmorgeologiya (Russian Federation) and the Republic of Korea. Subsequently, annual reports were submitted by the Government of India, the Interoceanmetal Joint Organization (IOM), the China Ocean Mineral Resources Research and Development Organization (COMRA) and l’Institut français de recherche pour l’exploration de la mer/l’Association française pour l’étude et de la recherche de nodules (IFREMER/AFERNOD).

3. In accordance with the methodology agreed upon during the eighth session, the Commission appointed a subcommittee to carry out a preliminary study of the annual reports and prepare a draft evaluation for consideration by the full Commission. The members of the subcommittee appointed for this purpose were Dr. Lindsay Parson, Dr. Frida Maria Armas Pfirter and Dr. Arn Bjorlykke.

## **II. Evaluation of annual reports and recommendations**

4. The Commission recalled that, at its meeting during the eighth session, it had recommended that, in order to facilitate reporting, contractors utilize a standardized form for annual reports, based on the provisions of the Regulations (ISBA/8/LTC/2, annex). Pursuant to the recommended format and structure, annual reports shall be submitted in accordance with the requirements of section 10 of annex 4 to the Regulations, in electronic format where possible. In addition, it was also suggested that the annual reports use the headings and standardized content list as follows: exploration work; environmental studies; mining tests; training programme; financial statement. The Commission also stressed the importance of standardization of data, in accordance with the recommendations of the Authority's workshop on standardization.

5. The Commission further recalled that, in relation to the annual reports for 2001, it had made specific recommendations for the submission of additional data and information by some contractors (ISBA/8/LTC/2, paras. 2-9).

6. In evaluating the reports for 2002, the Commission noted with appreciation that, in general, the contractors had taken note of the recommended format and structure for the annual reports suggested by the Commission at the eighth session. The Commission also noted that the process of appointing a subcommittee had facilitated a more expeditious consideration of the reports by the Commission as a whole. It was considered, however, that, in future, it would assist the subcommittee if the Secretariat were able to conduct a preliminary analysis of some of the more technical data and information contained in the annual reports. It was also suggested that it might be useful, in some cases, to allow the contractors an opportunity to meet with the subcommittee.

7. A suggestion was also made that it would be beneficial if the Authority could have an overall summary of the status of environmental monitoring and assessment being undertaken by contractors, which would be useful for a full understanding of those activities. It was felt that the suggestion warranted further study by the Secretariat and the Commission, but that the consent and involvement of contractors would be also essential.

### **A. Deep Ocean Resources Development Ltd.**

#### **1. Supplement to review of 2001 annual report**

8. With respect to the annual report of Deep Ocean Resources Development Ltd. (DORD) for 2001, the Commission had recommended that a full breakdown of expenditure be provided. It was noted that, on 11 October 2002, DORD had submitted to the Secretary-General of the Authority its breakdown of expenditures for exploration for 2001.

#### **2. Review of annual report for 2002**

9. DORD submitted its annual report for 2002 in both hard copy and electronic format on 19 March 2003 (within 90 days of the end of the calendar year). The report was structured in line with the headings and content list recommended by the Commission.

10. The Commission found that activities reported by DORD during 2002 were in accordance with its plan of work.

*Exploration work*

11. The work reported comprises data-processing and analysis and is in accordance with part of the contracted DORD phase 2 exploration programme.

12. No statement of the quantity of polymetallic nodules recovered is made. Pursuant to section 10 of annex 4 of the Regulations, such a statement is required (even if the quantity is zero).

*Environmental studies*

13. In accordance with the programme of work of the contract, no work was carried out.

*Mining tests and mining technologies*

14. In accordance with the programme of work of the contract, no work was carried out.

*Training programme*

15. In accordance with the programme of work of the contract, no work was carried out.

*Financial statement*

16. DORD submitted to the Secretary-General of the Authority an appropriately certified breakdown of expenditure.

*Additional information provided by the contractor*

17. None provided.

*Proposed adjustments to the programme of activities*

18. None.

**3. Recommendations**

19. The Commission recommended that in future the annual report should clearly identify work completed in the reported year from previous or future programmes.

20. The Commission also recommended that a statement of the amount of nodules recovered be obtained from the contractor.

**B. Yuzhmorgeologiya**

**1. Supplement to review of 2001 annual report**

21. With respect to the annual report of Yuzhmorgeologiya for 2001, the Commission had recommended that the Secretary-General of the Authority take necessary steps to ensure that the adjustments to the programme of activities under

the contract as proposed by the contractor were made in accordance with the provisions of the standard clauses. It was noted that these adjustments were made through an exchange of letters between the Secretary-General and the contractor dated 27 September 2002 and 22 November 2002, respectively.

## **2. Review of annual report for 2002**

22. Yuzhmorgeologiya submitted its annual report for 2002 in both hard copy and electronic format on 21 March 2003 (within 90 days of the end of the calendar year). The report was submitted in the Russian language only. It was noted that the Secretariat had subsequently requested that an informal English translation of the report be provided by the contractor for consideration by the Commission. Such a translation was not forthcoming, and an English translation, of the text only, without illustrative material, was finally obtained by the Secretariat from the translation service of the United Nations. The resulting mixed documentation is not ideal for review by the Commission and the Commission requests that in future it should be supplied with a fully integrated version of the annual report (i.e., full text with figures), in English, at a reasonable time prior to the assessment exercise.

23. The Commission found that activities reported by Yuzhmorgeologiya during 2002 were in accordance with its plan of work. However, the Commission found no indication of short-term, medium-term or long-term objectives as recommended in ISBA/8/LTC/2, annex.

### *Exploration work*

24. The Commission noted the thorough reporting of exploration work undertaken by Yuzhmorgeologiya, both of its operational details and the presentation of results. The Commission also welcomed the useful illustrative material (geophysical data and interpretative analyses), which greatly facilitated the assessment of activities reported. No statement of the quantity of polymetallic nodules recovered was made. Pursuant to section 10 of annex 4 of the Regulations, such a statement is required (even if the quantity is zero).

### *Environmental studies*

25. The Commission noted that work associated with the analysis of environmental data is not completed, but welcomed the preliminary presentation of results and analyses in accordance with its recommendations in ISBA/8/LTC/2, annex.

### *Mining tests and mining technologies*

26. In accordance with the programme of work of the contract, no mining equipment is under development.

### *Training programme*

27. In accordance with the programme of work of the contract, no work was carried out.

### *Financial statement*

28. There is a certificated breakdown of expenditures.

*Additional information provided by the contractor*

29. None provided.

*Proposed adjustments to the programme of activities*

30. None.

### **3. Recommendations**

31. The Commission recommended that, in accordance with its suggestions in ISBA/8/LTC/2, annex, the long-, medium- and short-term objectives of the Yuzhmorgeologiya programme be stated. The Commission also recommended that a statement of the amount of nodules recovered be obtained from the contractor.

## **C. Interoceanmetal Joint Organization**

### **1. Supplement to review of 2001 annual report**

32. With respect to the annual report of the Interoceanmetal Joint Organization (IOM) for 2001, the Commission had recommended that the contractor be requested to provide a statement in the proper form indicating the actual and direct expenditures of the relevant accounting year, the appropriate certification thereof and additional information on the location of acquired photographic data. In addition, the Commission had recommended that the Secretary -General take necessary steps to ensure that proposed adjustments to the programme of activities were made in accordance with the provisions of the standard clauses of the contract.

33. On 27 November 2002, IOM submitted to the Secretary -General a statement of its exploration expenditures in 2001 as approved by the IOM Council at its 39th meeting, on 12 November 2002, as well as information on the location of acquired photographic data.

34. The aforementioned adjustments to the programme of activities under the contract as proposed by IOM were made through an exchange of letters, dated 27 September 2002 and 21 October 2002, between, respectively, the Secretary -General of the Authority and Ryszard Kotlinski, Director-General of IOM.

### **2. Review of annual report for 2002**

35. IOM submitted its annual report for 2002 in both hard copy and electronic format on 24 March 2003 (within 90 days of the end of the calendar year). The report was submitted in the Russian language only, with an executive summary in English. The Secretariat requested an informal English translation be provided by the contractor for consideration of the report by the Commission. This was not forthcoming and an English translation was obtained by the Secretariat from the translation service of the United Nations.

36. The Commission requests that in future it should be supplied with a fully integrated version of the annual report (i.e., full text with figures) in English, at a reasonable time prior to the assessment exercise.

37. The Contractor informed the Secretary -General of the Authority that due to their confidential nature and the national laws of the IOM member States, annexes 2

and 3 to the report would be submitted separately, as soon as possible prior to the ninth session of the Authority. This material was subsequently delivered to the Authority on 28 July 2003, during the ninth session, and was reviewed by the subcommittee.

*Exploration work*

38. There was no survey or sampling fieldwork undertaken during the period of the annual report, in accordance with the plan of work. Work carried out under the exploration programme for 2002 consisted of analysis of samples taken during the previous (2001) work programme.

39. The Commission requires that the work completed in 2001 has to be clearly referred to as such and, if discussed in subsequent annual reports, its presentation should be clearly identified, and separated from work carried out during the reporting year. The Commission noted specifically that there seems to be some implied overlap in some of the activities undertaken in 2001 and 2002. This situation is in particular related to activities reported in section A.1.1, Shipboard laboratory analysis. There were no shipboard operations in 2002, and therefore the Commission recommends clarification of: (a) the activities for each of the years; and (b) an indication of how that apportionment of work affects the breakdown of the financial statement.

40. No statement of the quantity of polymetallic nodules recovered was made. Pursuant to Section 10 of annex 4 of the Regulations, such a statement is required (even if the quantity is zero).

*Environmental studies*

41. A series of sample analyses that have been carried out during the year were reported and the results compiled and presented in tables. The Commission recommends that where possible, such analytical results should be depicted in graphical or other illustrative form in order to facilitate assessment of the work undertaken.

*Mining tests and mining technologies*

42. The Commission noted that as for the exploration programme, it was difficult to assess the work programme undertaken during 2002 because it was not clear how separate this work is from that completed in 2001. The Commission requested that future reports contain clear indications of work undertaken during the reporting year and where this work continues on from, or relates to, previous efforts, this is equally clearly indicated.

*Training programme*

43. In accordance with the programme of work of the contractor, no work was carried out.

*Financial statement*

44. The Commission found it difficult to comment on the IOM report in other than general terms, until clarification could be obtained as to what work has been specifically undertaken in each of the years 2001 and 2002, and how that

apportionment impacts on the 2002 financial statement. Specifically, the Commission noted that the activities described under expenditure item number 3 of the breakdown submitted in the report did not correspond to the work programme described for that budget line item in section II.C. Likewise it was difficult to relate expenditure item number 4 of the breakdown to the work programme as described under text section II.D.

45. Appropriate certification of the financial statement was not available.

*Additional information provided by the contractor*

46. None provided.

*Proposed adjustments to the programme of activities*

47. None.

### **3. Recommendations**

48. While taking note of the confidential nature of some parts of the data contained in the annual report, the Commission requested that these data are supplied within 90 days of the end of the calendar year, as required by the contract.

49. The Commission also recommended that a statement of the amount of nodules recovered be obtained from the contractor.

## **D. Republic of Korea**

### **1. Supplement to review of 2001 annual report**

50. With respect to the annual report of the Republic of Korea for 2001, the Commission had recommended that the contractor be requested to provide a statement in the proper form indicating the actual and direct expenditures. Such a statement was submitted to the Secretary-General on 10 February 2003.

### **2. Review of annual report for 2002**

51. The Government of the Republic of Korea submitted its annual report for 2002 in both hard-copy and electronic format on 31 March 2003, within 90 days of the end of the calendar year. The report followed the suggested headings in ISBA/8/LTC/2, annex, and included a certificate of expenditure, summary and references.

52. The Commission found that activities reported by the Republic of Korea during 2002 were in accordance with the plan of work.

*Exploration work*

53. Two cruises of one month each were carried out in the exploration area. The contractor gave a very complete description of the equipment and methodology used and of the results obtained. However, the Commission recommended that results from survey sampling should be provided in some form of illustrative chart form as well as in tables, as this would facilitate the process of review of data and analytical results.

*Environmental studies*

54. Part of one of the two cruises undertaken during 2002 was dedicated to environmental studies. These studies were carried out on the characteristics of the sediments, as well as on the biology of the upper water column and benthos.

*Mining tests and mining technologies*

55. The initiatives undertaken on the mining technologies are numerous and are described only in outline. The Commission felt that it requires further details of the operations undertaken and results for this part of the annual report.

*Training programme*

56. In accordance with the programme of work of the contractor, no training was carried out.

*Financial statement*

57. A certified financial statement, including a breakdown and an explanation of the items included was provided.

*Additional information provided by the contractor*

58. None provided.

*Proposed adjustments to the programme of activities*

59. None.

**3. Recommendations**

60. The Commission recommended that the Republic of Korea be requested to supply additional information regarding the mining technologies undertaken in the reporting year. These details should include description of equipment, operations and, where relevant, results of tests.

61. The Commission thanked the Republic of Korea for its kind invitation to the 33rd annual meeting of the Underwater Mining Institute to be held in the Republic of Korea in October 2003. It expressed the hope that as many as possible of its members would be able to attend.

**E. Government of India**

**1. Review of annual report for 2002**

62. The Government of India submitted its annual report for 2002 (without electronic version) on 29 April 2003. The Commission noted that this submission was made beyond 90 days from the end of the calendar year. The report presented information under the headings introduction, survey and exploration, environmental impact assessment study, technology development (mining), metallurgy, expenditure and references.

63. The Commission found that activities reported by the Government of India during 2002 were in accordance with the plan of work.



*Exploration work*

64. One cruise of 35 days' duration was undertaken for sampling. The report stated that chemical analysis of the nodules collected has been completed but there were no details of the results included in the report. The Commission recommended that details of the samples taken and results from the 2002 survey, sampling and analysis programmes should be provided in chart form as well as in tables.

65. No statement of the quantity of polymetallic nodules recovered is made. Pursuant to section 10 of annex 4 of the Regulations, such a statement is required (even if the quantity is zero).

*Environmental studies*

66. The Commission noted the thorough reporting of the environmental impact assessment study.

*Mining tests and mining technologies*

67. The Commission noted the extensive work carried out by India in this area and took note of the comprehensive reporting of the mining test programme.

*Training programme*

68. In accordance with the programme of work of the contractor, no work was carried out.

*Financial statement*

69. The report does not contain a breakdown of expenditures.

*Additional information provided by the contractor*

70. The Commission noted that 15 papers were published during 2002. It was suggested that full references to these papers, included as part of the annual report, would be useful.

*Proposed adjustments to the programme of activities*

71. None.

**2. Recommendations**

72. The Commission recommended that an appropriately certificated financial breakdown for the activities undertaken in 2002 be provided by the Government of India.

**F. China Ocean Mineral Resources Research and Development Association****1. Supplement to review of 2001 annual report**

73. With respect to the annual report of the China Ocean Mineral Resources Research and Development Association (COMRA) for 2001, the Commission had requested that the financial statements be certified, a full breakdown of expenditure

provided and additional information given on the exploration data acquired during 2001 and on the quantities of nodules sampled. All the required information relating to exploration data was provided in an additional report submitted by COMRA on 15 April 2003.

74. A certified financial statement for 2001 was submitted on 28 July 2003. The Commission noted, however, that expenditure item No. 9 (renovation of research vessel *Dayang Yihao*) relates to an item that is not included in the contractor's plan of work.

## **2. Review of annual report for 2002**

75. COMRA submitted to the Secretary-General on 10 June 2003 its annual report both in hard copy and electronic format. The report was submitted in Chinese with an English translation. The Commission noted that the report was not submitted within 90 days of the end of the calendar year. The report was structured generally in line with the headings and content list recommended by the Commission in ISBA/8/LTC/2, annex.

76. The Commission noted that COMRA had informed the Secretary-General that the certificate for the statement of the actual and direct exploration expenditure incurred in carrying out the programme of activities during 2002 would be submitted by the Chinese delegation to the International Seabed Authority at the ninth session. Such a certificate was submitted on 28 July 2003.

### *Exploration work*

77. COMRA did not provide any details of location or composition of the nodules sampled/analysed. The Commission recommended that these are included in the report in both table form and as illustrative charts or map compilations.

### *Environmental studies*

78. The Commission recognized the large number of data points and sample analyses referred to by COMRA as part of the activities in the environmental programme for 2002. The Commission regards the results provided by COMRA in the annual report as less than it requires for an assessment of the work undertaken. The Commission therefore recommended that further details of operations, analyses and results be provided by the contractor. These details should be available for review by the Commission in both table and chart form.

### *Mining tests and technologies*

79. The COMRA initiative regarding the simulated feasibility study and the virtual reality research relating to mining technology is interesting but the details of the activities are missing in the report and should be included for full assessment. The Commission noted that the report of the virtual reality study of a mining/sample lift programme at a water depth of 1,000 metres does not provide details of results or conclusions. In the light of the substantial investment of funds in the modelling of the mining system the Commission expects more detailed reporting of the results of the study.

80. The COMRA report also described different processing technologies undertaken on manganese nodule samples during the year. The results of these experiments are missing and should be made available to the Commission.

*Part V of the annual report: capacity-building*

81. The Commission noted that the refit/renovation programme of the research vessel *Dayang Yihao* is not included in the COMRA plan of work, but the work is included under the finance section, item 4.1.

*Financial statement*

82. The Commission noted that item 4.1 of the financial breakdown (refit/renovation of research vessel *Dayang Yihao*) is not included in the COMRA plan of work for exploration.

*Additional information provided by the contractor*

83. None provided.

*Proposed adjustments to the programme of activities*

84. None.

### **3. Recommendations**

85. The Commission recommended that the Contractor be requested to supply details of sample location and analytical results, both from exploration work and environmental studies, summarized in illustrative chart or graphical form, as well as in tables. The Commission also recommended that the Contractor be asked to supply additional substantive details of the mining test initiatives, including results.

86. The Commission also recommended that items related to the refit/renovation of research vessel *Dayang Yihao*, included in the financial certificates for 2001 and 2002, but not included in the COMRA plan of work for exploration, should not be considered as actual and direct expenditures incurred in exploration.

## **G L'Institut français de recherche pour l'exploration de la mer/ l'Association française pour l'étude et de la recherche de nodules (IFREMER/AFERNOD)**

### **1. Supplement to review of 2001 annual report**

87. With respect to the annual report of l'Institut français de recherche pour l'exploration de la mer/l'Association française pour l'étude et de la recherche de nodules (IFREMER/AFERNOD) for 2001, the Commission had recommended that the contractor be requested to submit a statement of expenditure in accordance with section 10.2 (c) of the standard clauses. The contractor indicated in its note verbale of 19 December 2002 to the Secretary-General that the required certified statement would be submitted. However, to date it has not been received.

## 2. Review of annual report for 2002

88. IFREMER/AFERNOD submitted its annual report on 26 June 2003 on activities carried out in France within the framework of the exploration contract for the period between 1 July 2002 and 30 June 2003. The report was submitted in both French and English. The Commission noted that the report was not submitted within 90 days of the end of the calendar year and that it did not cover the reporting period (calendar year) as required by the Regulations.

89. The report presented information under the headings of introduction, participation in scientific workshops, scientific watch, technological developments specifically dedicated to deep sea exploration, cost estimation and the provisional programme of work.

### *Exploration work*

90. In accordance with its programme of work, IFREMER/AFERNOD had only committed to active monitoring of technological development. The activities referred to in the annual report are appropriate for this plan of work.

91. No statement of the quantity of polymetallic nodules recovered is made. Pursuant to section 10 of annex 4 of the Regulations, such a statement is required (even if the quantity is zero).

### *Environmental studies*

92. In accordance with the programme of work of the contract, no work was carried out.

### *Mining tests and technologies*

93. In accordance with the programme of work of the contract, no work was carried out.

### *Training programme*

94. In accordance with the programme of work of the contract, no work was carried out.

### *Financial statement*

95. The report contained neither a detailed breakdown of expenditures nor a certificate of expenditures, but only an estimation of costs. The Commission also noted that the reported overhaul/refit of the manned submersible D.V. *Nautile* was not contracted as part of the original work plan and should therefore not be included in the breakdown of the financial statement.

### *Additional information provided by the contractor*

96. None provided.

### *Proposed adjustments to the programme of activities*

97. None.

**3. Recommendations**

98. The Commission recommended that the contractor submit an appropriately certified financial statement for both 2001 and 2002, taking into account the comments made in paragraph 95 above.

99. The Commission also recommended that the contractor adopt the prescribed period of the annual report, namely the calendar year.

100. The Commission also recommended that a statement of the amount of nodules recovered be obtained from the contractor.

---