



Legal and Technical Commission

Distr.: General
11 August 2006

Original: English

Twelfth session
Kingston, Jamaica
7-18 August 2006

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 twelfth 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”). The work of the Commission was facilitated by a summary report prepared by the Secretariat on the status of annual reports received from contractors (ISBA/12/LTC/CRP.1).

2. The fifth set of annual reports of contractors was due at the end of March 2006. As of 5 July 2006, annual reports had been received from seven contractors: Deep Ocean Resources Development Co. Ltd. (DORD), Yuzhmorgeologiya, the Government of the Republic of Korea, China Ocean Mineral Resources Research and Development Association (COMRA), Interoceanmetal Joint Organization (IOM), the Government of India, and Institut Français de Recherche pour l’Exploitation de la Mer (IFREMER).

3. The Commission notes that for the most part, the annual reports provide a significant amount of information about the activities, facilitating the work of the Commission. Nonetheless, the Commission would request that, wherever possible, the greatest care should be taken to ensure, in particular, that any illustrative material provided is appropriately and clearly annotated. It would further facilitate the Commission’s task if work undertaken according to the contract at any time other than the current reporting year was clearly identified as such, so as to avoid any uncertainty regarding the contractor’s activities. In addition, the Commission requests that the Secretary-General provide clarification on the body qualified to certify a breakdown of expenditure in the case of a contractor being a State or a State enterprise given that it cannot be the operator itself.

II. Evaluation of annual reports and recommendations

A. Deep Ocean Resources Development Co. Ltd.

General

4. DORD submitted its annual report for 2005 in electronic and hard copy format on 28 March 2006. The report was structured in line with the headings recommended by the Commission. The work carried out was consistent with the activities outlined in the five-year plan of work.

Exploration work

5. During 2005, DORD reported that its exploration activities were focused on the analysis of earlier field survey work.

Mining test and mining technology

6. In accordance with the programme of activities under the contract, no activity was reported during 2005.

Training

7. In accordance with the programme of activities under the contract, no activity was carried out.

Environmental monitoring and assessment

8. In accordance with the programme of activities under the contract, DORD did not carry out any environmental study during 2005.

Financial statement

9. In accordance with the programme of activities under the contract, the annual report contained a breakdown of expenditure in the form of a certificate.

Proposed adjustment to the programme of work

10. No proposed adjustment to the programme of work was made.

Conclusions and recommendations

11. The Commission notes that the report is compliant with section 10, annex 4, of the Regulations and, in general, with the recommendations of the Commission contained in document ISBA/8/LTC/2.

B. Yuzhmorgeologiya

General

12. The State Enterprise Yuzhmorgeologiya, of the Ministry of Natural Resources of the Russian Federation, submitted its annual report for 2005 on 24 March 2006 in Russian. The English translation of the report was submitted electronically on 7 July

2006. The report contains information on Yuzhmorgeologiya's exploration activities, environmental studies, mining tests and research activities.

Exploration work

13. During the reporting period, Yuzhmorgeologiya conducted exploration activities in two areas. In the West, the aim was to study the setting of nodule occurrence, and in the East, the aim was to develop techniques for contouring the prospective zones for nodules. From a total of 179 sampling stations, 634 kg of nodules were recovered. The results are extensively reported and, for the most part, well illustrated. It is noted that research and development progress has been made with respect to the in situ geotechnical instrumentation, and that successful trials of the instrumentation were carried out.

Mining test and mining technology

14. In accordance with the programme of activities under the contract, no activity was carried out.

Training

15. In accordance with the programme of activities under the contract, no activity was carried out.

Environmental monitoring and assessment

16. During 2005, Yuzhmorgeologiya collected geochemical, biological, oceanographic and meteorological data. It undertook geochemical and biological studies onboard its research vessel. In addition, samples of sediments, nodules and biologic materials were analysed at onshore laboratories.

Proposed adjustment to the programme of work

17. No proposed adjustment to the programme of work was made.

Financial statement

18. In accordance with the programme of activities under the contract, the annual report contained a breakdown of expenditure in the form of a certificate.

Conclusions and recommendations

19. The Yuzhmorgeologiya report is exhaustive and contains descriptions of equipment and methods employed for work during the reporting period. It also contains numerous figures and tables that provide all the relevant information. The details of stations and survey lines, among other information, are provided. However, it is noted that the report could have included further details of the results of nodule abundance and analysis. The Commission notes that the report is compliant with section 10, annex 4, of the Regulations and, in general, with the recommendations of the Commission contained in document ISBA/8/LTC/2.

C. Government of the Republic of Korea

General

20. The Government of the Republic of Korea submitted its annual report for 2005 in electronic and hard copy format in March 2006. The work carried out was consistent with the activities outlined in the five-year plan of work. The report was structured in line with the headings recommended by the Commission.

Exploration work

21. The contractor reports on a 92-day cruise carried out in 2005, of which 62 days were spent on exploration and environmental surveying, and 30 days on mobilization/demobilization and transit. Bottom sediments and nodules were collected from 56 stations. Bathymetric data and sub-bottom profiler data were also acquired. Onboard analysis included measurements of physical properties and mineral composition of the sediments, as well as the distribution and abundance of nodules.

Mining test and mining technology

22. There were no mining tests in 2005. The contractor reports some progress in collector vehicle and lifting system development, including a computer simulation programme for collector vehicle design, and a collector sea test as well as a lifting equipment test. As part of the programme, the construction of a laboratory for deep-sea mining is reported.

Training

23. In accordance with the programme of activities under the contract, no training was carried out.

Environmental monitoring and assessment

24. The environmental work carried out during the cruise included studies of the physical and chemical parameters of the water column. Results reflected variations in water depth as well as in latitude. The contractor also reports the results of biological and oceanographic studies. In particular, the report describes the distribution and productivity of phytoplankton, zooplankton, meio- and macrofauna.

Financial statement

25. In accordance with the programme of activities under the contract, the annual report contained a breakdown of expenditure in the form of a certificate.

Proposed adjustment to the programme of work

26. No changes were proposed to the five-year programme of work.

Conclusions and recommendations

27. The Commission notes that the report is compliant with section 10, annex 4, of the Regulations and, in general, with the recommendations of the Commission contained in document ISBA/8/LTC/2.

D. China Ocean Mineral Resources Research and Development Association

General

28. COMRA submitted its annual report for 2005 in both hard copy and electronic format. The report contains sections on COMRA's exploration activities, environmental baseline surveys, development of mining technologies, metallurgical processes, and its workplan for 2006.

Exploration work

29. COMRA continued its field exploration activities during 2005, comprising a 36-day cruise. The report provides a complete list of the stations, their position and water depths. This work is in accordance with the outline procedures and protocols used for the field exploration activities. Multicorer and a dredge were used to obtain 238 kg of nodules.

Mining test and mining technology

30. According to the report, COMRA continued its research and development activities on deep-sea mining technology in 2005. Analysis of the microstructure of polymetallic nodules using transmission electron microscope techniques has been reported comprehensively.

Training

31. In accordance with the programme of activities under the contract, no activity was carried out.

Environmental monitoring and assessment

32. COMRA made available in its report the environmental data it acquired for areas it surveyed in 2005. Biological baseline data collected during 2005 included: chlorophyll, megafauna, meiofauna and chloroplastic pigment in the sediment. Chemical baseline data collected during 2005 comprised: ph value, dissolved oxygen, phosphate and nitrite. According to the report, the physical baseline data that were collected in 2005 compare well with the previous year's data.

Financial statement

33. In accordance with the programme of activities under the contract, the annual report contained a breakdown of expenditure in the form of a certificate.

Proposed adjustment to the programme of work

34. No proposed adjustment to the programme of work was made.

Conclusions and recommendations

35. The Commission notes that the report is compliant with section 10, annex 4, of the Regulations and, in general, with the recommendations of the Commission contained in document ISBA/8/LTC/2.

E. Interoceanmetal Joint Organization

General

36. IOM submitted its annual report for 2005 in June 2006. The report was structured in line with the headings recommended by the Commission. The work carried out was consistent with the activities outlined in the five-year plan of work.

Exploration work

37. The contractor presented the results of analysis of samples from 600 seafloor stations collected during the cruise carried out in 2004. The link between seafloor morphology and abundance as well as an analysis of the abundance based on location and genetic origin is reported. Also discussed was the relationship between nodule size, growth mode, and occurrence in terms of depth and location. The contractor has provided detailed chemical analysis in table form.

Mining test and mining technology

38. IOM continued to develop a design of a mining system and settled on a hydraulic system based on suction of a mixture of sediments, nodules and water. The contractor reports that significant effort was devoted to working on a pyro-hydrometallurgical technology for nodule processing.

Training

39. In accordance with the programme of activities under the contract, no activity was carried out.

Environmental monitoring and assessment

40. The report presents analysis of marine sediment parameters and elemental chemistry.

Financial statement

41. The annual report contains a breakdown of expenditure in accordance with the programme of activities under the contract, but at the time of this report, no certification was available.

Proposed adjustment to the programme of work

42. No information was provided on proposed adjustments to the programme of work.

Conclusions and recommendations

43. With the exception of the certification of the breakdown of expenditure, the Commission notes that the report is compliant with section 10, annex 4, of the Regulations and, in general, with the recommendations of the Commission contained in document ISBA/8/LTC/2.

F. Government of India

General

44. The Government of India submitted its annual report for 2005 in both hard copy and electronic format on 24 March 2006. The report was structured in line with the headings recommended by the Commission.

Exploration work

45. The contractor reported that one cruise was undertaken during the reporting period, with 54 stations being sampled and with nodules collected at 25 stations. The weight of nodules collected was approximately 13 kilograms. An area of approximately 17,500 sq. km has been selected which is characterized by high grade and by high abundance of nodules.

Mining test and mining technology

46. The contractor reported a substantial research and development programme, including developing the different components of the mining system, and successful trials of the underwater mining system in a test pond. The report also indicates that an appropriate area to be used for tests of the mining system has been located at 500 metres water depth. Regarding research and development of the metallurgy processes, the operation of the pilot processing plant is ongoing.

Training

47. In accordance with the programme of activities under the contract, no activity was carried out.

Environmental monitoring and assessment

48. In 2005, the contractor reported that one cruise was undertaken to monitor the recolonization of the ecosystem after a benthic disturbance. It also reported that benthic studies of the area selected as a first generation mine site were conducted. According to the report, box core sediment sampling involved 46 operations at 39 stations. The report elucidates the methodology used for, inter alia, sediment sub-sampling, analysis of nitrite, phosphate, silicate, nitrate and sediment chemistry.

Financial statement

49. In accordance with the programme of activities under the contract, the annual report contained a breakdown of expenditure in the form of a certificate.

Proposed adjustment to the programme of work

50. Variation to the programme of work is indicated as an annex to the report, which contains general statements under the headings of exploration survey, mining, metallurgy, and potential environmental impact. The revised programme provides additional details to the original programme of activities, especially in the section dealing with potential environmental impact, where the work has been subdivided into a series of phased tasks.

Conclusions and recommendations

51. The Commission felt that it was a comprehensive report but would benefit if activities carried out in the current reporting year were separated from those carried out in previous years. The Commission notes that the report is compliant with section 10, annex 4, of the Regulations and, in general, with the recommendations of the Commission contained in document ISBA/8/LTC/2.

G. Institut Français de Recherche pour l'Exploitation de la Mer

General

52. IFREMER submitted its annual report for 2005 in hard copy format in French. The Secretariat arranged for its translation. IFREMER focused on environmental issues in accordance with the programme of activities under the contract. In addition, the report contains information on international collaboration.

Exploration work

53. In accordance with the programme of work, the data collected during the NODINAUT cruise that was conducted in May and June 2004 were processed.

Mining test and mining technology

54. In accordance with the programme of activities under the contract, no activity was carried out.

Training

55. In accordance with the programme of activities under the contract, no activity was carried out. Two students were trained as part of their master's degree by IFREMER.

Environmental monitoring and assessment

56. During 2005, IFREMER concentrated on processing and analysing data collected during the NODINAUT cruise (May to June 2004). Initial results obtained on the benthic communities' populations and characteristics of the habitat in the contract area were reported. The initial results include biodiversity and heterogeneous distribution of benthic organisms (from megafauna to microbes, sedimentary fauna and fauna attached to the nodules), and biological and geochemical processes at the sediment-water interface, geology, geochemistry and hydrography.

Financial statement

57. In accordance with the programme of activities under the contract, the annual report contained a breakdown of expenditure in the form of a certificate.

Conclusions and recommendations

58. The Commission notes that the report is compliant with section 10, annex 4, of the Regulations and, in general, with the recommendations of the Commission contained in document ISBA/8/LTC/2.