DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Deep Seabed Mining: Approval of Exploration License Extensions

AGENCY: Office for Coastal Management, National Ocean Service, National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.


SUMMARY: NOAA is announcing the approval of two, five-year extensions of deep seabed hard mineral exploration licenses issued under the Deep Seabed Hard Mineral Resource Act (DSHMRA). The decision to approve the extensions follows a determination that the Licensee has substantially complied with the licenses, their terms, conditions and restrictions, and the associated exploration plan, and a review of comments on the requested extensions. No at-sea exploration activities are authorized by these extensions without authorization and further environmental review by NOAA.

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SUPPLEMENTARY INFORMATION: On February 21, 2017, Lockheed Martin Corporation (Licensee or “LMC”) requested from NOAA an extension of two exploration licenses that it holds under the Deep Seabed Hard Mineral Resources Act (DSHMRA). The licenses are known as USA-1 and USA-4.
When originally issued in 1984, USA-1 and USA-4 were for a term of ten years. DSHMRA requires that requests to extend the licenses be approved every five years if the licensee has substantially complied with the licenses, their terms, conditions and restrictions, and the associated exploration plan.

On April 20, 2017, NOAA published a Federal Register notice (82 FR 18613) announcing the receipt of the extension request for USA-1 and USA-4, and soliciting comments on whether the Licensee had met the statutory requirement of showing substantial compliance. Comments were also solicited from the Western Pacific Fisheries Management Council (WPFMC) and the U.S. Department of State. A response to comments is included in this notice.

Upon determining that the Licensee had substantially complied with the licenses, their terms, conditions and restrictions, and the associated exploration plan, and completing environmental review of the request for extension in conformance with the requirements of the National Environmental Policy Act, NOAA approved a five-year extension of the licenses through June 2, 2022. The extension maintains the proprietary interests that the licenses confer upon the Licensee but does not authorize LMC to conduct at-sea exploration activities pursuant to the licenses.

Additional authorization and further environmental review by NOAA is required before at-sea exploration may be undertaken pursuant to these licenses.

**RESPONSE TO COMMENTS:** As noted above, in addition to the Federal Register notice requesting comments on the extension request, comments were solicited from WPFMC and the U.S. Department of State. The WPFMC found that none of the fisheries under the Council’s jurisdiction would be affected by the onshore activities outlined in the extension request, and had no objections to the extension. The Department of State reviewed the request and had no objections or comments.
NOAA received five responses to the Federal Register notice request for comments. The comments received are summarized as follows along with the responses by the NOAA Office for Coastal Management.

**Comment:** Deep seabed mining can result in environmental disturbance and harm to ocean ecosystems and should not be authorized.

**Response:** LMC is not proposing, and NOAA is not authorizing, at-sea deep seabed exploration activities at this time. Rather, NOAA is extending existing exploration licenses, which by their terms, require additional NOAA approval prior to the Licensee commencing at-sea exploration activities. Commercial recovery operations are not permitted by the USA-1 and USA-4 licenses.

**Comment:** Unless and until there is full accession by the United States to the 1982 United Nations Law on the Sea Convention, United States companies should be prohibited from conducting exploration activities on the international seabed.

**Response:** The NOAA Administrator is under an obligation established by Congress to issue an extension of these licenses to a U.S. applicant if the relevant criteria are satisfied. One of the express purposes of DSHMRA is to establish an interim program to regulate the exploration for and commercial recovery of hard mineral resources of the deep seabed by United States citizens pending the ratification by, and entering into force with respect to the United States, of what was then known as the Law of the Sea Treaty. See 30 U.S.C. § 1401(b)(3). Under the requirements of Section 107(a) of DSHMRA, NOAA is required to approve requests to extend exploration licenses if the Licensee has substantially complied with the license, its terms, conditions and restrictions, and the exploration plan associated therewith. See 30 U.S.C. § 1417(a). Consistent with the criteria set forth in 15 CFR § 970.515(b), NOAA has determined that the Licensee has substantially complied with the licenses, their terms, conditions and restrictions, and associated
exploration plan, and therefore, extension of USA-1 and USA-4 licenses may not be withheld. A DSHMRA exploration license gives the holder the exclusive right to explore a specific area, but only as against other U.S. entities. Any rights a U.S. company may have domestically are not secured internationally because U.S. companies are not able to go through the internationally recognized process at the International Seabed Authority established for Parties to the United Nations Convention on the Law of the Sea (UNCLOS).

**Comment:** There has not been meaningful progress by the Licensee to show that there has been substantial compliance with the licenses and exploration plan. In claiming that the exploration plan has been diligently pursued, the Licensee claims credit for work that was not conducted by the Licensee or even in the USA-1 or USA-4 license areas. The extension request should be denied.

**Response:** NOAA disagrees with the conclusion that the Licensee has not substantially complied with the USA-1 and USA-4 licenses and the exploration plan associated therewith.

In assessing whether the Licensee has substantially complied with the licenses, their terms, conditions and restrictions, and the associated exploration plan, the Act requires that the Licensee pursue diligently the activities described in its approved exploration plan. The licenses further specify that in order to show that it has diligently pursued the activities in its approved exploration plan, the Licensee shall submit an annual report demonstrating conformance with the schedule of activities, level of activity, and expenditures for implementing the plan. This report also focuses on the evolving ability of the Licensee to apply for a permit for commercial recovery.

In regard to satisfying the diligence requirement, the Deep Seabed Mining Regulations for Exploration Licenses state that:
Ultimately, the diligence requirement will involve a retrospective determination by the Administrator, based on the licensee’s reasonable conformance to the approved exploration plan. Such determination, however, will take into account the need for some degree of flexibility in an exploration plan. It will also include consideration of the needs and state of development of each licensee, again based on the approved exploration plan. In addition, the determination will take account of legitimate periods of time when there is no or very low expenditure, and will allow for a certain degree of flexibility for changes encountered by the licensee in such factors as its resource knowledge and financial considerations. 15 CFR § 970.602(c).

The exploration plans associated with these licenses have evolved since their original approval as part of the initial license issuance in 1984. In 1991, NOAA approved a revised exploration plan for USA-1 delaying at-sea exploration due to unfavorable conditions in the metals markets.¹ Subsequent extensions of USA-1 included the approval of the exploration plan with the delayed implementation of at-sea activities (referred to as “Phase II Activities” in the exploration plan).

When NOAA approved the transfer of USA-4 to the Ocean Minerals Company (OMCO), the predecessor to LMC, in 1994, OMCO stated that no at-sea exploration activities were planned or needed due to data collection that preceded the enactment of DSHMRA. In 2012, NOAA approved a consolidated exploration plan for USA-1 and USA-4 with the same contingency delaying the start of Phase II at-sea exploration activities due to unfavorable market conditions. In addition, the Licensee cited the need to have security of tenure through international recognition of the licenses by the International Seabed Authority following accession by the United States to the UNCLOS, as a justification for delay of the Phase II exploration activities.

¹ DSHMRA regulations provide that the Administrator may make allowance for deviation from the exploration plan for good cause, such as significantly changed market conditions (provided the request for extension is accompanied by an amended exploration plan to govern the activities of the licensee during the extended period). See 15 CFR § 970.515(b).
Since the last extension of these exploration licenses, LMC has made substantial expenditures on activities pursuant to its approved exploration plan.\(^2\) Noteworthy activities of LMC include:

- The integration of data into a GIS system to map nodule density including the density distribution of nodules by concentrations of target metals;
- The development of environmental baseline metrics by benthic organism class;
- The development of updated economic models based on the validation of the end-to-end baseline architecture for seabed mining through the assessment of each segment of the architecture for its technical and economic feasibility;
- Benchtop metallurgical tests of extraction efficiencies for the primary commercial target metals and Rare Earth Elements found in nodules;
- Selecting the chain of custody and processing protocols that will be used for mineral content certification which will be necessary in order to obtain financing for future operations; and
- Participation in the meetings and discussions of the International Seabed Authority and various international programs pertaining to the deep seabed.

In addition, the approved exploration plan includes environmental assessment activities that must occur as a prerequisite to undertaking Phase II. These activities are necessary to further advance the understanding of the seabed environment, and the scientific methodology for its characterization. Developing this understanding is not limited to activities pertaining specifically to the areas licensed to LMC. Working collaboratively with research institutions, nation states, and exploration contractors authorized by the International Seabed Authority, LMC has contributed to collaborative efforts that have made substantial advancements in identifying

\(^2\) Although LMC has discussed some work performed in collaboration with a United Kingdom subsidiary in its annual reports, NOAA’s determination of substantial compliance was based upon an assessment of LMC’s contributions to these collaborative efforts.
organisms inhabiting the deep seabed, their abundance, distribution, diversity, and community structure. In addition to taxonomic classifications, these efforts have included genetic characterizations, which are critical to establishing biogeographical distinctions and connectivity in the deep seabed environment. This data and information, in turn, can be used for predictive habitat modelling. These contributions to the advancement of science are expected to be applicable to activities in the areas within the USA-1 and USA-4 licenses when Phase II activities are proposed there. NOAA, therefore, views these efforts as further evidence of the Licensee’s diligence in pursuing the activities described in the exploration plan.

As discussed in the exploration plan associated with the requested extension of USA-1 and USA-4, the Licensee continues to find that the market conditions and the lack of international tenure under UNCLOS prevent the company from moving forward with Phase II of its exploration plan. Nonetheless, the Licensee has demonstrated a commitment to retain the licenses on a legitimate presumption that the existing contingencies will be resolved. LMC’s annual reports demonstrate that preparatory work for at-sea exploration is continuing and NOAA has determined that such efforts constitute substantial compliance with the USA-1 and USA-4 licenses and associated exploration plan. As such, extension of USA-1 and USA-4 is warranted.

Comment: Due to the LMC’s failure to adequately specify what activities are to occur under the individual exploration licenses, the applicant has failed to substantially comply with its license and application plan, and therefore, the extension requests should be denied.

Response: NOAA disagrees. In 2012, NOAA approved a consolidated exploration plan for USA-1 and USA-4. The Phase I preparatory activities within the approved consolidated exploration plan are described generally and appropriately apply to both areas. Given the general nature of the preparatory activities under Phase I, separate descriptions of those activities for
both license areas are not necessary. As described above, the Licensee has provided sufficient justification to determine that it has substantially complied with the licenses and associated exploration plan. If the Licensee proceeds to Phase II, activity descriptions pertaining specific areas may be necessary.

Federal Domestic Assistance Catalog 11.419 Coastal Zone Management Program Administration.

Dated: August 30, 2017.

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[FR Doc. 2017-18994 Filed: 9/6/2017 8:45 am; Publication Date: 9/7/2017]