STATEMENT OF CONSIDERATIONS

REQUEST BY MOTOROLA MANUFACTURING SYSTEMS FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN PATENT RIGHTS UNDER LBNL SUBCONTRACT NO. 6443828-CHANGE ORDER NO. 1; DOE WAIVER NO. W(A)-97-006; SAN-671

The Petitioner, Motorola Manufacturing Systems (MMS), has requested an Advance Waiver of the Government's domestic and foreign rights to inventions made under the above cited Change Order (Contract Modification) to research and development Contract No. 6443828 (R&D Contract). An Advance Waiver W(C)-97-027; SAN-670 has been granted for the underlying R&D Contract on December 30, 1996. However, that Advance Waiver was not to be applied "to a modification or extension of the contract where, through such modification or extension, the purpose, scope or DOE cost of the contract has been substantially altered." As the subject Change Order increases the DOE cost, MMS has petitioned DOE for another Advance Waiver to apply to this Contract Modification.

The objective of the R&D Contract, which was issued by the Lawrence Berkeley National Laboratory (LBNL) on behalf of DOE's Office of Health and Environmental Research (ER-70), provided consulting services to support planning activities toward the eventual creation of a next generation DNA sequencing facility. More specifically, the R&D Contract required the preparation of technical roadmaps, i.e., for automation, scheduling, quality control, materials inventory management, etc., to improve the directed sequencing process. Portions of the R&D Contract, which was started on December 19, 1996, are complete. MMS has delivered the following items: the plan analysis; the cost model; the proposed layout; and the facility physical requirements. MMS has also completed the technical status review and the Final Funding Plan Report.

LBNL proposes to extend the R&D Contract until July 15, 1997. During the performance of the Contract Modification, MMS will use its team of engineers and consultants to begin detailed planning, training, procedure development and further analysis in pursuit of the plans completed in the R&D Contract. More specifically, MMS plans to continue the process analysis using the process simulation model in order to identify progressive steps toward LBNL goals. MMS will construct a quality awareness and training program for all LBNL Human Genome Center employees. MMS will create a requirements specification for a Work-In-Progress tracking system. MMS will define a detailed ramp plan through 1998 in all metrics areas which include production and support activities. MMS will develop process control procedures for critical production processes and will perform analysis of initial material handling needs. Finally, MMS will identify automation sourcing strategy and procedures. See Exhibit A, the Petition, Statement 2.

As discussed in the previous collateral DOE Waiver No. W(A)-96-027, the



programmatic requirements of LBNL for the R&D Contract suggest a very narrow field of vendors who could provide the proposed service. As noted in the Sole Source Justification Memorandum, which was attached to DOE Waiver No. W(A)-96-027, there are no organizations or facilities in the field of genomics that approach the scale of the anticipated ramp up required by the LBNL sequencing effort. In fact, most companies fail to have the combination of an established manufacturing facility and requisite industrial engineering knowledge that would be appropriate for completing this contact. Because Motorola has adequately performed the work in the current R&D Contract, LBNL believes that Motorola is the logical and sole source to complete this Contract Modification.

Motorola, Inc. (Motorola) is a manufacturer of telecommunications products and semiconductors and has expertise in manufacturing and manufacturing-related technologies. Motorola will continue to apply its previously acquired knowledge and expertise in manufacturing products for its markets to this subcontract. See Exhibit A, Statement 10. Over the past five years, Motorola has invested over \$100 million in developing and maintaining a staff of manufacturing experts which can be accessed for work on this project. See Exhibit A, Statement 10. As discussed in DOE Waiver No. W(A)-97-027, Motorola's expertise in world class manufacturing techniques, specifically the creation and management of project teams oriented around continual improvement of the manufacturing process, was necessary to complete the initial R&D Contract and will be instrumental in completing the Contract Modification. In addition, it is expected that the relationship with Motorola will play a key role in facilitating the collaboration between LBNL, Lawrence Livermore National Laboratory (LLNL) and Los Alamos National Laboratory (LANL) as it established the DOE Joint Genome Institute. See Exhibit A. Statement 4.

To achieve a close working relationship with other Motorola divisions, MMS is using a project team approach to carry out this Contract Modification. MMS, which is a corporate staff department of Motorola, uses its team of engineers and consultants to confer with other divisions of Motorola in order to assist with development of software, automation, materials management, and facilities projects. See Exhibit A, statement 7. The proposed fixed price lump-sum extension of the current contract will last another 16 weeks at a cost of \$249,500. In accordance with established accounting practices, MMS is not being required to track costs or bill hours directly to reimbursable accounts for this project. Thus, if a novel and patentable process were developed during this Contract Modification, it would be difficult for Motorola to substantiate which project team activity conceived of the novel process. Therefore, this Advance Waiver will protect Motorola's interest by permitting retention of title to their Subject Inventions

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without creating the necessity for establishing a direct link between the development of the novel process and the funding source under this Contract Modification. Without this Advance Waiver, MMS will be hindered in discussing and conferring with other divisions of Motorola without the guarantee that title to any Subject Invention that Motorola may conceive or reduce to practice is retained by Motorola. In fact, Motorola has stated that it will not enter into this contract without an advance right to retain title to and practice inventions conceived by its employees. See Exhibit A, statement 5. It should be noted, however, that LBNL has verified that no inventions were developed during the performance of the initial R&D Contract.

It should also be mentioned that the Patent Rights clause negotiated with MMS did not include either a Background Patents or a U.S. Competitiveness provision. Due to the short term (16 weeks) nature of this contract, which involves continuing the evaluation of the proposed plant and facilities requirements, such provisions are not deemed necessary. The assessment to be prepared by MMS under the current contract extension also is not likely to involve the development of commercializable products or processes. In any event, requiring that any waived inventions be manufactured substantially in the United States may make Motorola less competitive given that they already have manufacturing operations in several foreign countries that are believed to be essential for access to overseas markets which comprises more than half of their sales revenue. Finally, omission of the Background Patent provision is in accordance with regulation 48 CFR 927.302 (Policy) which state that such provision "...may not be appropriate for certain types of study contracts (or) for planning contracts".

LBNL supports granting this advance patent waiver to MMS. After the R&D Contract and each modification is completed, Motorola may be included in future follow-on contracts over the next few years to assist in further development of a Joint Genomics Institute, which will involve the participation of Lawrence Livermore and Los Alamos National Laboratories. However, this Advance Waiver and the terms of the intellectual property clauses included within the subject R&D Contract are meant to cover the scope of the work under this particular project and shall not serve as precedent for any follow-on work to be negotiated separately by the Parties in the future.

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For the foregoing reasons, and in view of the objectives and considerations set forth in 41 CFR 9-9.109-6, all of which have been considered, it is recommended that the requested waiver be granted for this Contract Modification.

Gery Drew, Patent Attorney Intellectual Property Law Division DOE Oakland Operations Office

Based on the foregoing Statement of Considerations, It is determined that the interests of the United States and the general public will best be served by waiver of the United States and foreign patent rights as set forth herein, and therefore, the waiver is granted. This waiver shall not apply to another modification or extension of the contract where, through such modification or extension, the purpose, scope or DOE cost of the contract has been substantially altered. This waiver shall not affect any waiver previously granted.

CONCURRENCE:

Daniel Drell

Health Effects and Life Sciences Research Division Office of Health and Environmental Research

APPROVED:

Paul Gottlieb, Assistant General Counsel for Technology Transfer and Intellectual Property