STATEMENT OF CONSIDERATIONS

REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS BY MEXICHEM FLUOR INC., UNDER DOE AWARD NO. DE-EE0009642; W(A)-2021-005

Petitioner, Mexichem Fluor Inc., has requested a waiver of: (a) domestic and foreign patent rights for all subject inventions conceived solely by Petitioner and (b) Petitioner's undivided interest, based on its employee's contributions, to joint domestic and foreign patent rights for all subject inventions conceived, arising under the above referenced award.

The objective of Petitioner's award is to support the DOE's Vehicle Technologies Office by extending the operating range and safety of vehicles with Li-ion batteries. The aim of the research is to tailor the design of fluorinated salts, additives, and co-solvents for use in commercial Li-ion batteries. In particular, Petitioner will focus on developing new fluorinated materials with improved safety and performance in Li-ion batteries over existing Li-ion fluorinated electrolytes.

The total anticipated cost of the award is \$3,129,842.00 including the Petitioner's contribution of \$630,000.00, or about twenty percent (20%) of the total cost of the work under the award. This waiver is contingent upon Petitioner maintaining, in aggregate, the above cost sharing percentage over the course of the award. The period of performance is from 1 October 2021 to 31 December 2022.

Referring to items 5-9 of the waiver petition, Petitioner has engaged in the research and development of Li-ion battery electrolytes for several decades. Further, Petitioner has expended and typically expends approximately 25% of its research and development funds on battery development. Further, petitioner expects to invest more than \$3,000,000 to develop the fluorinated electrolytes that are the subject of Award No. DE-EE0009642. Moreover, Petitioner is actively making significant commercial investments to establish a USA-based supply chain for key battery materials including fluorinated electrolytes. This investment will include hiring more battery scientists and engineers to directly assist in and promote further development of the technology espoused by the DE-EE0009642 agreement. Accordingly, Petitioner has significant experience in developing technology within this field and will continue to further develop the contracted work.

Petitioner has agreed that this waiver will be subject to the march-in and preference for U.S. industry provisions, as well as the U.S. Government license, set out in 35 U.S.C. 202-204. Further, Petitioner has agreed to the attached U.S. Competitiveness provision (paragraph (t)). The Petitioner further has agreed to the attached revised paragraph (h) to submit annual reports on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by Petitioner and any of its licensee or assignees. If sold or transferred this reporting obligation will pass on to the buyer or transferee.

Petitioner has agreed that products embodying a waived invention or produced through the use of a waived invention will be manufactured substantially in the United States unless the Petitioner can show to the satisfaction of the DOE that it is not commercially feasible to do so. Petitioner has further agreed to make the above conditions binding on any assignee or licensee or any entity otherwise acquiring rights in the waived inventions, including subsequent assignees and licensees. Should Petitioner or other such entity receiving rights in a waived invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license, or other transfer of rights in the waived inventions is suspended until approved in writing by DOE.

Referring to item 10 of the waiver petition, granting this waiver will not have an adverse impact on competition. Numerous companies are developing alternative fluorinated electrolyte materials that will directly compete with the fluorinated electrolyte materials developed by Petitioner in the Li-ion battery market. Thus, granting the Petition will not hinder competition in the field.

Considering the foregoing, it is believed that granting this waiver will provide Petitioner with the necessary incentive to invest its resources in the commercialization of the results of the agreement in a fashion which will make the technology available to the public in the shortest practicable time. Therefore, upon evaluation of the waiver petition and in view of the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that the requested waiver be granted.

Aaron R. Keith Patent Attorney Intellectual Property Law Division

Date: 1/28/2022

Michael J. Dobbs Deputy Chief Counsel Intellectual Property Law Division

Date: 1/28/2022

Based upon the foregoing Statement of Considerations and representations in the attached waiver petition, it is determined that the interests of the U.S. and the general public will best be served by a waiver of patent rights of the scope described above, and therefore the waiver is granted. This waiver will not apply to any modification of extension of the award, where through such modification or extension, the purpose, scope or cost of the award has been substantially altered.

CONCURRENCE:	APPROVAL:
David Howell Acting Director Vehicle Technologies Office	Brian J. Lally Assistant General Counsel for Technology Transfer and Intellectual Property, GC-62
Date:	Date:

WAIVER ACTION - ABSTRACT

W(A)-2021-005

<u>REQUESTOR</u>	<u>CONTRACT SCOPE</u>	<u>RATIONALE FOR</u>
		DECISION

Mexichem Extending the Operating Range and Fluor Inc. Safety of Li-ion Batteries with New

Fluorinated Electrolytes

Mexichem Fluor Inc. has experience in the development of fluorinated electrolytes for Li-ion batteries and will continue to invest in material research within the Li-ion battery and fluorinated electrolyte field.

(h) Reporting on utilization of subject inventions.

The Contractor agrees to submit on request periodic reports no more frequently than annually on the utilization of each waived subject invention or on efforts at obtaining such utilization that are being made by the Contractor and any of its licensees or assignees including compliance with paragraph (t) of this clause. Each report shall include information regarding the status of development, date of first commercial sale or use, products that embody or are made through the use of the waived subject invention, manufacturing locations of such products and such other data and information as DOE may reasonably specify. The report shall further include a certification from the Contractor that the Contractor, including its licensees, is in compliance with the requirements of this clause.

(t) U. S. Competitiveness

The Contractor agrees that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible. In the event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., alternative binding commitments to provide an overall net benefit to the U.S. economy. The Contractor agrees that it will not license, assign or otherwise transfer any subject invention to any entity, at any tier, unless that entity agrees to these same requirements. Should the Contractor or other such entity receiving rights in the invention(s): (1) undergo a change in ownership amounting to a controlling interest, or (2) sell, assign, or otherwise transfer title or exclusive rights in the invention(s) is/are suspended until approved in writing by DOE. The Contractor and any successor assignee will convey to DOE, upon written request from DOE, title to any subject invention, upon a breach of this paragraph. The Contractor will include this paragraph in all subawards/contracts, regardless of tier, for experimental, developmental or research work.