STATEMENT OF CONSIDERATIONS

REQUEST BY SPRINGBORN LABORATORIES, INC. FOR AN ADVANCE WAIVER OF U.S. AND FOREIGN RIGHTS UNDER NREL SUBCONTRACT NO. ZAG-3-11219-02 UNDER DOE PRIME CONTRACT NO. DE-AC02-83CH10093, WAIVER NO. W(A)-93-001, CH0753.

The attached petition by Springborn Laboratories, Inc. (hereafter Springborn) is for an advance waiver of patent rights under NREL Subcontract ZAG-3-11219-02 and under DOE Contract No. DE-AC02-83CH10093. Springborn requests that the Department of Energy grant an advance waiver for the domestic and foreign rights to inventions made in the performance of work under the above identified subcontract and that these rights vest in Springborn subject to the standard march-in, preference for U.S. industry, and the background patent rights provisions as well as the attached U.S. competitiveness provision which is similar to that currently included in DOE's cooperative research and development agreements at the national laboratories.

The scope of work under the above subcontract involves improving the long term reliability of photovoltaic (PV) modules. One component critical to the service life of PV modules is the useful life of the Ethylene Vinyl Acetate (EVA) encapsulate. In certain cases, the EVA encapsulate has been found to yellow or brown, indicating possible long term reliability problems with the EVA encapsulated systems. One of the goals of the subject program is to solve the discoloration problem by investigating the probable mechanisms of degradation of the EVA encapsulates. Springborn also plans to develop stabilization strategies for protecting the EVA encapsulate, regardless of the module construction, from degradation failures. It is through pursuit of these objectives that Springborn plans to achieve its ultimate goal of improving PV module reliability. To fulfill the above stated objectives, Springborn would employ its extensive experience in polymers as related in Answer 5.

As indicated in answers 9, 10 and 14, Springborn states that it will patent any newly developed technology and will license this technology, including background data, to third parties under reasonable terms and conditions. Also, in conjunction with licensing this technology, Springborn has indicated that it will disseminate the information developed in the course of this program to interested parties. These activities are expected to significantly enhance the development and ultimate commercialization of this technology. Additionally, given Springborn's willingness to license the technology developed under this program, granting this waiver should not place it in a dominant commercial or competitive position in this technology.

As set out in its petition, Springborn has spent \$364,850 over the last three years on the EVA encapsulate degradation problem. Under this subcontract, it plans to spend an additional \$452,123, or approximately thirty percent (30%) of the program cost of about \$1,507,078.



-2-

Upon evaluation of the Waiver Petition 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.



Date: 2/20/93

Based on the foregoing Statement of Considerations and the representations in the waiver request, it is determined that the interests of the United States and the general public will best be served by a waiver of the patent rights of the scope described above and therefore the waiver is granted. This waiver shall not apply to any modification or extension of this subcontract where through such modification or extension, the purpose, scope, or cost of the agreement is substantially altered.

CONCURRENCE:

James E. Rannels 7/30/93 Director Photovoltaics Division of the Office of Conservation and Renewable Energy APPROVAL:

Richard E. Constant Assistant General Counsel for Intellectual Property

9/5/13