

## STATEMENT OF CONSIDERATIONS

REQUEST FOR ADVANCE WAIVER OF PATENT RIGHTS BY LINDE LLC., MADE DURING THE PERFORMANCE OF SUB-CONTRACT QZ001, UNDER DOE AWARD NO. DE-FE0013123 TO SRI INTERNATIONAL; W(A)-2014-022, CH-1719

Petitioner, Linde LLC. (Linde), has requested a waiver of: (a) domestic and foreign patent rights for all subject inventions conceived solely by Linde and (b) Linde'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 awards.

The objective of the award is to demonstrate SRI's post-combustion capture technology by incorporating a carbon-sorbent process in a 1 MW slipstream pilot plant. The aim of the demonstration is to show 90% removal of CO<sub>2</sub> from coal-derived flue gas. Petitioner is to act toward this aim by designing, building, and operating a pilot plant to perform the demonstration.

The total anticipated cost of the award is \$12,914,422.00 including the prime contractor and Petitioner's combined contribution of \$2,587,587.00, or about twenty percent (20%) of the total cost of the work under the award. Petitioner's anticipated contribution is \$1,302,762.00, or about fifty percent (50%) of the cost share, or about ten percent (10%) of the project total. 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 2013 to 31 March 2017.


Referring to items 5-9 of the waiver petition, Petitioner has engaged in the research and development of gas purification as well as designing, engineering, and commissioning commercial plants for the production and handling of gases such oxygen, CO<sub>2</sub>, olefins, and natural gas. Further, Petitioner engages in research, development, and commercialization of amine based solvents for post-combustion CO<sub>2</sub> capture. Petitioner has participated in pilot CO<sub>2</sub> capture demonstrations including a 30 MW oxyfuel pilot plant. Petitioner also offers for commercial sale multiple plant technologies for natural gas processing including CO<sub>2</sub> capture. 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 perform research and development in the CO<sub>2</sub> sorbent field and in competing technologies in parallel with Petitioner. Consequently, 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.

  
Jacob A. Heafner  
Patent Attorney  
Intellectual Property Law Division

Date: 1/23/15

  
Brian J. Lally  
Deputy Chief Counsel  
Intellectual Property Division

Date: 2/23/15



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 or extension of the award, where through such modification or extension, the purpose, scope or cost of the award has been substantially altered.

CONCURRENCE:



Angelos Kokkinos  
Director  
Office of Advanced Fossil Technology Systems  
Fossil Energy

APPROVAL:



Brian Lally  
Assistant General Counsel for Technology  
Transfer and Intellectual Property, GC-62

Date: 3/23/17

Date: 4/3/17