

## STATEMENT OF CONSIDERATIONS

REQUEST BY FOSTER WHEELER FOR ADVANCE WAIVER OF  
WORLDWIDE RIGHTS IN SUBJECT INVENTIONS MADE IN THE  
COURSE OF OR UNDER A PROPOSED SUBCONTRACT UNDER  
COOPERATIVE AGREEMENT NO. DE-FC21-90MC27403 BETWEEN DOE  
AND JACKSONVILLE ELECTRIC AUTHORITY [DOE DOCKET NO.  
W(A)-97-028; ORO-669]

The Department of Energy (DOE) and the Jacksonville Electric Authority (JEA) have entered into a novation agreement whereby JEA has become the signatory to and Participant in Cooperative Agreement No. DE-FC21-90MC27403. The City of Tallahassee (COT) was the original Participant in this Cooperative Agreement based on a proposal submitted by COT under the Round 1 Clean Coal Technology (CCT) Program Opportunity Notice (PON). Foster Wheeler Power Systems is a proposed subcontractor and technology vendor under the cooperative agreement with JEA. Through the process of novating the Round 1 Cooperative Agreement, similar, but more appropriate, CCT PON Round 5 intellectual property provisions were incorporated. These provisions were modeled after those in CCT Cooperative Agreement No. DE-FC21-94MC31261 with the City of Lakeland, since the technology vendor under that project is also Foster Wheeler. The work is sponsored by the Office of Fossil Energy.

Foster Wheeler was granted an advance patent waiver under the COT project [DOE Docket No. W(A)-90-042; ORO-462]. Because of the change of Participant and Project Site, Foster Wheeler submitted an updated request for an advance waiver of patent rights. The scope of Foster Wheeler's waiver request is for worldwide patent rights in subject inventions which may be made by Foster Wheeler Power Systems and various Foster Wheeler Power Systems affiliated and subsidiary companies in the course of or under the proposed subcontract with the JEA.

At this stage of the project, it is not certain which affiliated and subsidiary companies will participate in this project, but the most likely participants and their role in connection with the project are as follows:

Foster Wheeler Energy Corporation: design and supply of the Circulating Fluidized Bed (CFB) boiler to be commercialized through the project, and repayment of the DOE funds through the Repayment Agreement.

Foster Wheeler Development Corporation: research, development and technological input to the CFB technology.

Foster Wheeler USA Corporation: design, engineering and construction services.

Foster Wheeler Environmental Corporation: environmental permitting services.

Rights to any waived subject inventions made by these affiliated and subsidiary companies shall be owned by the entity that made the invention.

The Cooperative Agreement calls for the JEA to conduct the world's largest demonstration of circulating fluidized-bed (CFB) technology through repowering an existing oil and gas-fired boiler at JEA's Northside Generating Station in Jacksonville, Florida. JEA will be using Foster Wheeler CFB technology for the demonstration, and will undertake the repowering of a second boiler at this station outside the DOE cooperative agreement and without DOE financial support. The goal of the DOE project is to demonstrate the scale-up of CFB technology as a cost effective, reliable and environmentally acceptable technology which achieves significant reductions in SO<sub>2</sub> and NO<sub>x</sub> emissions, along with a reduction in groundwater consumption.

The total estimated cost of repowering both boilers is \$463 million. The estimated cost of repowering the first boiler under this Cooperative Agreement is about \$309 million. JEA and Foster Wheeler Power Systems will cost share 75.8 percent or \$234 million, with Foster Wheeler expecting to cost share about 35 to 50 percent of the total project cost. DOE will provide the remaining 24.2 percent or about \$75 million. As a result of its significant investment of money and manpower, Foster Wheeler Power Systems will be a co-owner in the Project.

The JEA is currently negotiating a subcontract with Foster Wheeler Power Systems, Inc. to design, construct and install a 300 megawatt gross (265 megawatt net) CFB boiler and the balance of plant. Execution of the subcontract is expected in the first quarter of calendar year 1998. Foster Wheeler Power Systems will have the lead program management responsibility for the design, procurement, and construction of the facility, and will participate in its operation. As discussed above, Foster Wheeler Power Systems will utilize the services of several Foster Wheeler affiliated and subsidiary companies to accomplish its responsibilities under the cooperative agreement.


The Cooperative Agreement contains a commitment by JEA to require Foster Wheeler Energy Corporation, the CFB boiler technology developer, to commercialize its CFB technology. JEA will do so by flowing down the PON Rights in Technical Data clause including paragraph (j), "Commercialization of CFB Technology," into the Foster Wheeler subcontract. Foster Wheeler Energy Corporation has agreed to commercialize the demonstrated technology and to repay the Government's cost share from future sales and licensing revenues of the demonstrated technology in both repowered units and new units.

The subcontract will contain an advance patent waiver clause approved by Foster Wheeler which will become effective upon approval of the requested waiver. This clause contains provisions for U.S. preference, DOE march-in, and agreement by Foster Wheeler to license its background patents for purposes of operating or having operated a CFB facility.

Grant of the requested waiver should not result in adverse affects on competition or market concentration. There are a number of manufacturers located in the United States, Europe and Japan that offer circulating fluidized bed boilers in both the domestic and foreign markets. In addition, CFB technology currently represents a relatively small percentage of the overall boiler markets due to the use of a variety of other technologies for the various types of fuels used in the energy field.

Grant of the requested waiver should provide encouragement to other DOE contractors that significant cost sharing, repayment of the Government's cost share and commitments by the contractor to commercialize the technology which is the subject of the contract will be recognized by the DOE as considerations for granting greater rights in subject inventions.

Accordingly, in view of the level of cost sharing provided to the overall project, the agreement by Foster Wheeler to commercialize the demonstrated technology and Foster Wheeler's agreement to repay the Government's cost share to the project from revenues realized from the sale, or licensing of the demonstrated technology, and the objectives and considerations set forth in 10 CFR 784, all of which have been considered, it is recommended that an advance waiver of the herein-defined scope be granted.

  
Lisa A. Jarr  
Patent Attorney

Based on the foregoing Statement of Considerations and the representations in the attached waiver petition, it is determined that the interests of the United States and the general public will best be served by waiver of U.S. and foreign patent rights and, therefore, the waiver is granted. This waiver shall not apply to any modification or extension of the proposed subcontract between the JEA and Foster Wheeler where through modification or extension, the purpose, scope, or cost of the subcontract has been substantially altered.

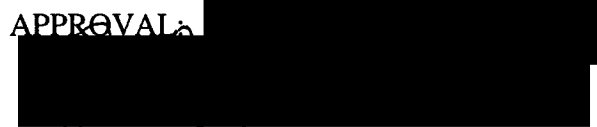
CONCURRENCE:



George Rudins  
Deputy Assistant Secretary  
Office of Coal and Power Systems

Date: \_\_\_\_\_

APPROVAL:



April 10, 1998

Paul A. Gottlieb  
Assistant General Counsel for Technology  
Transfer and Intellectual Property

Date: 4-16-98