

pelzner, roseann

From: Smith, Sean [smsmith@leydig.com]
Sent: Friday, December 03, 1999 11:50 AM
To: 'roseann.pelzner@oak.doe.gov'
Cc: Mueller, Wesley
Subject: FOIA Request F1999-01723

Ms. Roseann Pelzner Goodwin
FOIA Officer
United States Department of Energy
1301 Clay Street, Room 700-N
Oakland, CA 94612-5208

Dear Ms. Goodwin:

Further to our discussion earlier this week concerning the above-referenced FOIA request, this e-mail is to specifically request copies of any and all materials in the possession of the Department of Energy concerning work performed at the Lawrence Berkeley National Laboratories between the years of 1988 and 1995 by Allan M. Konrad on projects involving remote database objects. This request is made pursuant to 5 U.S.C. 552 ("The Freedom of Information Act").

At the present time, we authorize duplication and shipping fees for these copies in an amount up to \$500.00. If the cost of duplication will exceed this amount, please e-mail me for additional authorization.

Please feel free to contact me if you have any questions concerning this request, or require additional information. Thank you for your assistance in this matter.

Very truly yours,

copies for ~~FOIA~~ FOIA for Roseann

Sean M. Smith
for LEYDIG, VOIT & MAYER, LTD.
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Chicago, IL 60601
312-616-5626 (phone)
312-616-5700 (fax)
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Department of Energy
Office of Patent Counsel/Livermore Office
P O Box 808/L-376
Livermore, CA 94550-9900
(510) 422-4367

October 15, 1992

Allan M. Konrad
P. O. Box 4023
Berkeley, CA 94704

Subject: RETENTION OF RIGHTS IN DOE INVENTION
"LBL Remote Data Base Object"
DOE Case S-73,985 (RL-11508)
Under Contract No. DE-AC03-76SF00098

Dear Mr. Konrad:

Your "Petition for Waiver of Domestic and Foreign Rights to an Identified Invention" submitted to DOE on May 14, 1992 indicates that "any waiver of rights shall be subject to the Government license, march-in rights, and preference for U.S. industry set forth in 35 U.S.C. 202, 203, and 204".

In the understanding that you are accepting the provisions of 35 U.S.C. 202-204 if your Petition is granted, you may file a patent application for the invention and retain title thereto subject to a license in the Government and other rights as set forth in said provisions.

The Government's license and other rights are confirmed by means of an approved "Confirmatory License" (enclosed herewith) which should be submitted to this Office after you have filed a patent application and obtained a serial number from the U.S. Patent and Trademark Office.

In view of the fact that this letter is a formal grant to you of the Non-Governmental Rights to the above-identified invention, then this letter should be considered as fully responsive to the request in your Petition. Accordingly, no further action by DOE is necessary on your Petition. The commitments made by you in said Petition for Waiver are being relied upon by the Government as a basis for granting these rights.

Very truly yours,

Concurrence:

A handwritten signature in black ink, appearing to read "Miguel A. Valdes".

Miguel A. Valdes
Patent Attorney
Intellectual Property Law
Division

A handwritten signature in black ink, appearing to read "Roger S. Gaither".

Roger S. Gaither
Assistant Chief for Prosecution
IPLD

MAV:clm
0081S/86

ROUTING AND TRANSMITTAL SLIP

Date *10/8/92*

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. <i>Jim Hawley</i>		
2.		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

THIS IS THE SOC SENT TO HOGS ON AUG 13, 1992 IN THE ALLAN KOPRAN PORTION FOR WAIVER. WAIVER WAS REQUESTED ON MAY 14, 1992.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post) <i>Michelle A. Vandy</i>	Room No.—Bldg.
	Phone No.

9/30/92 (Monday) TALK TO JIM ABOUT THIS PETITION AND
WAIVER. JUD IS LOOKING INTO THE POSSIBILITY OF
GRANTING OR TRANSFERRING THE RIGHT TO ELECT
DIRECTLY FROM THE UNIVERSITY TO THE INVENTOR KANEAD
(WHICH IS UBL EMPLOYEE) UNDER THE PROVISIONS
OF THE BAYDORF ACT. JIM IS OF THE OPINION
THAT SOME OTHER FACTORS HAVE TO BE CONSIDERED,
SUCH AS THE PARTICULAR RIGHTS THAT DUE HAS IN THE
SITUATION WHERE THE INVENTOR DOES NOT PREDICATE
THE INVENTION. DO THE UNIVERSITY HAS THE OBLIGATION
TO CLAIM THE RIGHTS BACK FROM THE INVENTOR?

HE IS GOING TO SET A CONFERENCE CALL WITH JUD,
DICK COLSTANT, MICHAEL HOFFMAN AND US TO DISCUSS
THIS MATTER.

LAW OFFICES
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July 22, 1992

Mr. Miguel A. Valdes
Office of Patent Counsel, Livermore Office
Department of Energy
P.O. Box 808/L-376
Livermore, CA 94550

REC'D. by D.O.E. OFFICE
1992 JUL 23 P 1:48
PATENT COUNSEL AT LINTL

Re: DOE PATENT CASE NO. S-73,985 (RL-11508)
"REMOTE DATABASE OBJECT", Allan M. Konrad, inventor
Our File: 15340-1

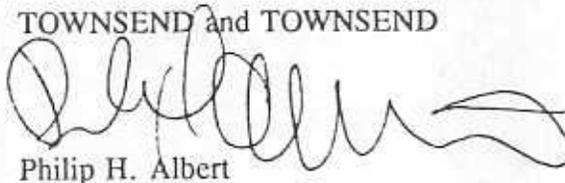
Dear Mr. Valdes:

Enclosed is a copy of the Interim U.S. Preference Provisions you provided to us. Our client, Allan M. Konrad, agrees that in exchange for the DOE granting the petitioned for waiver, he will adhere to the Provisions. As we discussed over the phone on July 21, 1992, paragraph 7 in the Provisions is incomplete, however it does not appear to apply to the above-captioned invention. However, insofar as the Provisions are complete, Mr. Konrad agrees to them.

If I can be of any further assistance in expediting this case, please call me at (415) 543-9600.

Very truly yours,

TOWNSEND and TOWNSEND



Philip H. Albert

PHA/dim

Enclosures: - Preference Provisions Agreed to by Mr. Konrad

pha:15340-1.L3

UNITED STATES DEPARTMENT OF ENERGY

INTERIM U.S. PREFERENCE PROVISIONS
IN
DOE CONTRACTOR LICENSING AGREEMENTS
(for waived inventions)

DOE Case NO. S-73,985 (RL-11508)

Licensing Objectives

In accordance with the various statutes, regulations, executive orders and policies addressing technology transfer, allocation and transfer of intellectual property rights and utilization of scientific and technical developments resulting from federally funded R&D, the objective of DOE in waiving inventions to its M&O contractor to be licensed to the private sector is to maximize public and private sector utilization of DOE-supported technologies. Further, contractor licensing and sublicensing practices should grant preference in a manner that maximizes the accrual of economic benefits to the U.S. domestic economy.

Interim Requirements

Waiver recipient agrees to:

- (1) Consider factors pertinent to the fulfillment of the above objectives in all licensing decisions; such factors include, but are not limited to:
 - direct or indirect investment in U.S.-based plant and equipment
 - creation of new and/or higher quality jobs in the U.S.
 - substantial domestic manufacture and extent of local (U.S.) content in finished products
 - enhancement of the domestic skills base
 - opportunity for further domestic development of the technology
 - expansion of the domestic tax base and recoupment to the Treasury after recovery of costs
 - reinvestment of profits in the domestic economy
 - positive impact on the U.S. balance of payments in terms of product and service exports, as well as foreign licensing royalty and other receipts

- extent of bilateral reciprocity in international trade and investment policies

- (2) Grant preference, on a best efforts basis, to those potential licensees which agree to commercially exploit the waived technology in a manner that will maximize the accrual of benefits to the U.S., considering such factors as enumerated in paragraph (1).

- (3) Make reasonable efforts to establish that there are no interested U.S.-based manufacturers prior to negotiating with non-U.S.-based manufacturers.

- (4) Obtain DOE approval prior to exclusively licensing a non-U.S.-based manufacturer for the U.S. domestic market.

- (5) When licensing a non-U.S.-based manufacturer for any market, including the U.S. domestic market, provide for appropriate recognition of U.S. taxpayer support for the technology; e.g., obtain a quid-pro-quo commensurate with the economic benefit that would be domestically derived by U.S. taxpayers from U.S.-based manufacture.

- (6) Except in situations as prescribed in paragraph (7) below, ensure that sublicensing and reassignment provisions in each license agreement are consistent with the foregoing requirements.

- (7) Include more rigorous U.S. preference requirements for any "strategic" technologies or capabilities in accordance with a separate program plan originated by the program Assistant Secretary or Director and concurred in by Policy, Planning and Analysis, and General Counsel. Such requirements would seek to control foreign access to, and utilization of, these technologies or capabilities. In the absence of an approved program plan or in conjunction therewith, for the following "strategic" technologies and any future similarly designated "strategic" technologies, each license should include a restriction on any reassignment or sublicensing:
 - a.
 - b.
 - c.

Exceptions to any reassignment or sublicensing must be approved by the funding program Assistant Secretary or Director.

INTERIM U.S. PREFERENCE PROVISIONS (cont.)

Page 3

- (8) Document licensing decisions based on consideration of the foregoing and other pertinent factors, maintain records of these decisions along with the licensing agreement, marking proprietary data or confidential financial information where appropriate, and make all these records available, upon request, to DOE for its review for conformance with the objectives of this policy and these requirements.

WAIVER ACTION-ABSTRACT

DOE CONTRACT NO. DE-AC03-76SF00098

DOE WAIVER NO. W(I)-92-037 [SAN 609]

REQUESTER

Allan M. Konrad
U of Calif./Berkeley

CONTRACT SCOPE OF WORK

The contract provides for
operation of the LBL GOCO
facility.

RATIONALE FOR DECISION

Petitioner will further develop
and commercialize the invention
on private time and expense.
There is to be no further
government of the invention

DISPOSITION

LAW OFFICES
TOWNSEND AND TOWNSEND

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JEFFREY K. WEAVER
PHILIP H. ALBERT
J. STEVEN WHITAKER*
TIMOTHY J. LITINGOW
JEFFRY J. GRAINGER
EUGENIA GARRETT-WACKOWSKI

CHARLES E. TOWNSEND, JR.
JOHN L. MCGANNON
HENRY K. WOODWARD
OF COUNSEL

* NOT ADMITTED IN CALIFORNIA.

Miguel A. Valdes
Office of Patent Counsel, Livermore Office
Department of Energy
P.O. Box 808/L-376
Livermore, CA 94550

Re: DOE PATENT CASE NO. S-73,985 (RL-11508)
"REMOTE DATABASE OBJECT", Allan M. Konrad, inventor
Our File: 15340-1

Dear Mr. Valdes:

Enclosed is a Petition for Waiver of Domestic and Foreign Rights to an Identified Invention, for your review and recommendation to the Secretary of the Department of Energy.

As the Petition and accompanying materials show, the above cited invention is one which does not interest anyone at the DOE or LBL, but one which the petitioner and inventor, Mr. Allan M. Konrad, is very interested in developing and marketing. Mr. Konrad is interested in obtaining a waiver from the DOE in order to proceed with filing of a patent on the invention and then commercialization of the invention.

Because of the nature of the information services and software industries where this invention is situated, Mr. Konrad respectfully requests that this Petition be expedited wherever possible. New products in this area are introduced literally every day, thus rapidly bringing this product to market is critical to its success as a tool for computer users. If this Petition is delayed, it is possible that other, less advanced tools will become standard in the information

PATENTS, TRADEMARKS, AND COPYRIGHTS

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CHARLES E. TOWNSEND (1904-1944)
STEPHEN S. TOWNSEND (1942-1986)

WRITER'S DIRECT DIAL NUMBER:

REC'D. by D.O.E. OFFICE
1992 MAY 15 P 3:29
PATENT COUNSEL AT LML

May 14, 1992

Miguel A. Valdes
May 14, 1992
Page 2

services industry. While these tools may be inferior, computer users cannot easily abandon their training investment in favor of superior products. Thus, not only would Mr. Konrad appreciate prompt attention to this Petition, but the computing public would as well.

The following exhibits, in addition to the Petition are attached:

Disclosure and Record of Invention Form - This document was submitted to LBL and the DOE in accordance with Mr. Konrad's obligations to disclose inventions in the course of his work at LBL, and it briefly describes the scope of the invention for which the Waiver is sought.

Your letter of October 15, 1991 - This letter indicates the DOE's lack of interest in filing a patent application on the present invention.

Letter from LBL of April 28, 1992 - This letter indicates LBL's waiver of rights in the present invention in favor of Mr. Konrad.

Two Field Task Proposals - These proposals further describe the scope of the present invention. The DOE has declined to fund either proposal, further indicating the DOE's lack of interest in the present invention.

Despite the DOE's and LBL's lack of interest in the present invention, Mr. Konrad still believes that, as a commercial product, the present invention would be welcomed in the marketplace. To do so, Mr. Konrad plans to expend personal time and money to see that a product is developed; however such investments and products await a favorable response from you and the DOE.

To assist you quick review of this Petition, each question is fully answered, but kept brief. However, if there is any additional information you may need, feel free to call me.

Very truly yours,

TOWNSEND and TOWNSEND



Philip H. Albert

PHA/dim
Enclosures
cc: Allan M. Konrad (w/encl.)

UNITED STATES

DEPARTMENT OF ENERGY

PETITION FOR WAIVER OF DOMESTIC AND FOREIGN
RIGHTS TO AN IDENTIFIED INVENTION

DOE WAIVER NO. _____
(Supplied by DOE)

DOE Case NO. S-73,985 (RL-11508)

Title of Contract/Contract No.:¹

- (A) *Contract Between the Regents of the University of California and the United States of America, to operate Lawrence Berkeley Laboratory ("LBL") from October 1987 to September 1992, DE-AC03-76F00098. (Note: This contract is identified on the Invention Disclosure by its precursor designation: W-7405-ENG-48).*
- (B) *Memorandum Purchase Order from Superconducting Super Collider Laboratory² ("SSCL") to LBL, GFAA-5SG-4302, Award # SSC91W09978, entitled "Remote Database Object Project HEP".*

Title of Subject Invention:

REMOTE OBJECTS, REMOTE DATABASE OBJECT

Petitioner's Identification No.: _____

Petitioner's Name/Address:

Allan M. Konrad, P.O. Box 4023, Berkeley, CA 94704.

Petitioner does hereby petition the Secretary of the United States Department of Energy for waiver of domestic and foreign rights of the United States of America to the Subject Invention which was made in the performance of work under the above-identified contract. It is understood that any waiver of rights shall be subject to the government license, march-in rights, and preference for U.S. industry set forth in 35 U.S.C. 202, 203, and 204, regardless of whether the Petitioner is a small business or nonprofit organization.

¹ *The Subject Invention was not funded directly by the Department of Energy, but was funded by two sources which can be indirectly traced to Department of Energy funding, labelled herein as (A) and (B). Where an answer to a question is different for each source of funding, the question is answered in a part (A) and a part (B), corresponding to the two sources of funding.*

² *The Superconducting Super Collider Laboratory is a DOE National Laboratory.*

Is Petitioner a small business as defined by 1-1.701 FPR? _____

Yes.³

In support of this petition, answers to the following questions are submitted:

1. Identify the specific rights which the Petitioner desires to obtain in Subject Invention. (Field of use, geographic area, exclusivity, term, etc.)

Petitioner desires to obtain the right to patent the Subject Invention which was developed by him at LBL using overhead funding from the DOE. By this petition for waiver, Petitioner petitions for the right to apply for U.S. and foreign patents covering the Subject Invention, prosecute such patent applications, have patents issued from such applications in due course with the Petitioner as the sole assignee.

Implied in such a waiver is a waiver of any objections to the making, using, or selling of the Subject Invention by the Petitioner or his assigns, and objections to the assertion of patent rights against third parties, subject of course to the rights reserved by the U.S. Government referred to above.

The field of use of these rights would be determined by the eventual uses of the Subject Invention, which cannot be fully contemplated at this time, however Petitioner envisions the use of the Subject Invention is a wide variety of remote information services applications. Since the Subject Invention implies geographically disperse computing, delineation of a particular geographic area is not meaningful in this instance. As for exclusivity, Petitioner plans for obtain exclusivity through patent grants. The term of the rights would therefore also be determined by the patent laws.

2. Give a brief description of the Subject Invention. Specify any known or potential weapons fields of use or weapons applications or naval nuclear propulsion use or application of the Subject Invention. To your knowledge, are any fields of use or applications of the invention classified or controlled or sensitive under Section 148 of the Atomic Energy Act (dealing with unclassified, sensitive nuclear information)?

The Subject Invention is summarized herein, and a fuller description of the invention is found in the attached "Disclosure and Record of Invention Form" previously submitted by the Petitioner in accordance with DOE and LBL regulations. The Subject Invention relates to a process and apparatus for establishing connectivity between a human user at a local host machine

³ 1-1.701 FPR has been superceded by 48 CFR §19.000 et seq. (esp. §19.001 and §19.102). According to the definitions of small businesses therein, Petitioner qualifies as a small business, since Petitioner has annual sales and employee counts of less than the limit for small businesses in the field of either SIC 7371 (computer programming services) or SIC 7372 (pre-packaged software), and Petitioner is not dominant in his field.

Petitioner estimates that LBL overhead funding allowed for least 2 person-years of effort to be applied to the development of the Subject Invention. Additionally, summer student and part time undergraduate students assisted as part of the ICSD's outreach program.

(B) An amount of \$48,000 was expended on a Purchase Order Memorandum by SSCL, which covered a period of performance from August 5, 1991 to September 30, 1991, and extended to December 31, 1991.

No further Government funding for the development of the Subject Invention is anticipated, and no continuing funding exists. Primarily due to present budgetary constraints at LBL ICSD for funding Remote Objects, and prior expression of disinterest of DOE in funding Remote Objects explicitly, Petitioner believes that neither ICSD, LBL, the University of California, nor SSCL intends to pursue any further development of the Subject Invention.

SSCL has declined to make any commitment for further funding for development of the Subject Invention, or to invite a proposal for funding. Furthermore, even if such interest arose, the ICSD management has indicated that such funding would not be accepted without review.

5. Briefly describe the Petitioner's technical competence in the field of technology in which the Subject Invention lies or to which it relates in terms of prior experience, know-how and patent position. (Attach exhibits to substantiate your technical competence, e.g., patents, technical publications, etc. If these are voluminous a representative sample is sufficient.)

Petitioner is a Staff Scientist II (Computer Science) in the Information and Computing Sciences Division at LBL. He has worked on assignments in information science for fifteen years at LBL, and has served as a Principal Investigator on the Joint Laboratory for Information Research and Technology Project for the past two years. Related assignments have included technical support for network-based remote tele-commuting, strategic information planning, and support for network-based access to on-line library catalogs and other bibliographic resources.

Petitioner's experience includes numerous other assignments in database and digital network applications, including design, implementation, and support. Petitioner's other experience includes responsibility for regulatory and compliance assignments relating to DOE Automated Data Processing Equipment (ADPE), management of hardware and software maintenance contracts, hardware procurement management, software licensing, administration of computer related software license agreements and nondisclosure agreements.

Consequently, Petitioner has working knowledge and familiarity with the primary technical fields which encompass the Subject Invention, Remote Objects: information technology, database applications, digital computer network deployment and network policy.

Attached are representative exhibits to substantiate Petitioner's technical competence, in the form of Field Task Proposals which were prepared by Petitioner for submission to DOE and the Joint Laboratory for Information Research and Technology in the course of seeking further

and a remote host machine to provide information services or other utilities from the remote host to the local host.

The Subject Invention has no known weapon-specific or naval-specific applications, although it might be used as a tool by computer users doing weapons or naval work. An apt analogy is to desktop computers, which are not defense specific, but can be used in support of defense applications and projects.

Petitioner is not aware of any applications of the Subject Invention which are classified, controlled or sensitive under §148 of the Atomic Energy Act (as codified at 42 USC §2168). Since the dissemination and patenting of the Subject Invention would not have any effect on the likelihood of illegal production of nuclear weapons or theft, diversion, or sabotage of nuclear materials, equipment, or facilities, §148 of the Atomic Energy Act is inapplicable to this petition.

3. Give a brief description of the scope of work of the above contract. Specifically describe the source of funding, including the name of the specific project under which the Subject Invention was made and the name of the cognizant DOE program director (Laboratory operators furnish B&R code, if available).

(A) The Subject Invention, Remote Objects, was developed by Petitioner in the course of work within the Information and Computing Sciences Division ("ICSD"), which is a support division of LBL. The division is funded primarily by overhead charged to funded research groups and provides services such as computer maintenance and support to the funded research groups throughout LBL. The scope of work relating to the Subject Invention was defined informally as a small scale prototype development project with the possibility that an application might be developed in support of Laboratory requirements. Consequently, there is no identified cognizant DOE program director. Petitioner reported progress and status information relating to this project to Dr. Stu Loken, Division Director, Information and Computing Sciences Division, at LBL.

(B) The scope of the work for SSCL was to provide a working prototype of the Remote Database Object to SSCL configured to support their usage of the High Energy Physics database at the Stanford Linear Accelerator Center. This was not research funding, but rather routine "Work For Others" (WFO) for technical services for the SSCL Library. Consequently, there is no cognizant DOE Program Director. No B&R code was assigned to this Memorandum, since it is WFO.

4. What is the dollar amount and period of performance of this contract and the amount specifically expended in making the Subject Invention? Is there further Governmental funding anticipated in the development of the invention? Describe any continuing Government funding of the development of the invention (including investigation of materials or processes for use therewith), from whatever Government source whether direct or indirect, and, to the extent known by petitioner, any anticipated future Government funding to further develop the invention.

(A) No amount was budgeted or attributable to develop the Subject Invention. The Subject Invention was a byproduct of support assignments in ICSD and work in conjunction with other LBL assignments. The period of performance was indefinite since this was an informal project.

funding for development of the Subject Invention.⁴ However, the best evidence of Petitioner's competence in the field is performance. Petitioner has successfully assembled and coordinated the efforts of a multi-institutional team which did produce a working prototype of a Remote Object.

In addition to Petitioner's wide experience in the field, he has a Master of Science degree in Management of Research and Development.

6. Briefly describe the Petitioner's established non-governmental commercial position in the field of technology in which the Subject Invention lies or to which it relates. (Discuss in terms of selling goods or providing services in such field outside of sales to the U.S. Government. Attach exhibits to substantiate your commercial position, e.g., sales brochures, etc. If these are voluminous a representative sample is sufficient.)

Petitioner has delayed the establishment of a non-governmental commercial position pending the grant of a waiver to the Subject Invention in response to this petition. The commercial position to be developed is that of a software supplier and consultant to commercial and noncommercial remote computing service providers. Petitioner expects that much of the commercialization will be to non-governmental entities such as publishers and information providers.

Petitioner has established considerable personal and professional contacts in the commercial remote computing, publishing, and information services industries. At the appropriate stage in the marketing of the Subject Invention, once intellectual property rights are secured by the filing of patent applications, Petitioner will call on these resources in order to promote Remote Objects vigorously.

7. What is the financial and technological investment that has been made by the Petitioner with regard to the field of technology in which the invention lies or to which it relates and with regard to the making and developing of the Subject Invention?

Petitioner has invested \$10,000 of his own money to secure the rights to the Subject Invention and to develop a business plan for a business which will provide Remote Objects software and consulting services.

Petitioner's technological investment includes nearly 15 years of career work in the field of computer science, database design, implementation, and support, and network deployment and policy.

8. To what extent will the Petitioner make a substantial investment of financial resources or technology which will directly assist the further development and promote the commercial utilization of the Subject Invention? Summarize

⁴ *These proposals are no longer pending, as the DOE has declined to fund either Field Task Proposal.*

petitioner's plans, intentions and ability in developing the Subject Invention to a point of commercialization. This should include a description of the technical steps required, funds necessary therefor and associated time periods necessary to develop the invention to the point of readiness for commercialization, and a statement by petitioner that either it or its present or prospective licensee will expend the necessary capital and resources.

Petitioner is prepared to invest substantially in Remote Object technology because he has strong confidence that this technology is a better way of accessing remote information and service resources than any other. It's extreme ease-of-use and maintenance will consequently appeal to a wide consumer market.

Petitioner is committed to Remote Objects, and as such, is prepared to use personal resources to fund the development of Remote Objects, however, Petitioner expects that with the granting of a waiver and the subsequent patent protection of Remote Objects, Petitioner will be able to fund further development of customized versions of Remote Objects from the sales of Petitioner's services to various customers who will need custom software and consulting.

Initially, Petitioner expects to commercialize the Subject Invention actively, instead of relying on licensees, and Petitioner plans to expend the necessary capital and resources and put in the necessary time and effort to fully commercialize the Subject Invention.

Plans and Intentions: *Petitioner is prepared to devote personal savings and equity toward establishment of an early round of "flagship" customers, the revenue from which will enable further promotion of Remote Objects.*

These flagship customers will be selected partly on their willingness to permit exposure of their use of Remote Objects to the public, and to enter into co-development agreements for implementations of Remote Objects on specific platforms. For example, a commercial database vendor may be a Remote Object customer for access to their particular database.

Financial Ability: *Petitioner has the financial ability to perform the tasks above, as the costs are minimal since Petitioner's business strategy requires no capital outlay for physical (computing) plant, since the Subject Invention will be developed for the most part through Petitioner's consulting and using the consulting client's physical plant. Since the Subject Invention will be commercialized by software customization and consulting, the majority of the necessary investment to develop the Subject Invention will be time investment rather than monetary investment.*

Entrepreneurial Ability: *Petitioner has a demonstrated entrepreneurial ability in attracting internal and external funding to LBL for Remote Objects and related projects over the past three years, thus is in a unique position to promote Remote Objects to commercial customers.*

The presentation of this petition is a testament to Petitioner's entrepreneurial initiative. As mentioned above, Petitioner's demonstrated ability to form a team and develop a prototype is further evidence of Petitioner's entrepreneurial ability.

Management Ability: *Petitioner has management experience in the Office of Computing Resources at LBL, managing hardware and software maintenance contracts and software licensing. Petitioner also holds graduate degree in Management of Research and Development.*

Petitioner's experience, in management of research and development, is sufficient that he appreciates the importance of attracting a different kind of managerial talent than Petitioner's, namely a professional management team with financial contacts and commercial experience. It is Petitioner's intent to recruit such a team at the appropriate stage in the product's development.

Technical Steps Needed to Commercialize the Subject Invention:

1. Identification of interested customers
2. Contracting with interested customers for a customized version of Remote Objects software and consulting
3. Tailoring Remote Object product to customer's network
4. Tailoring components to customer's operating environment
5. Tailoring Remote Object Client components to customer's target database or target service
6. Establishment of system monitoring and maintenance program tailored to customer's environment
7. User beta testing with customer's internal staff and beta user.

Funds necessary to perform the required technical steps:

As is standard in the field of software customization, the costs of technical steps 2-7 will be borne largely by the customers. The costs of technical step 1 has for the most part been expended by Petitioner in identifying likely customers. The initial funds will be provided by Petitioner's own investment, and are expected to cover the following costs: developing and executing a software agreement with a prospective customer including legal fees and patent application costs (\$5,000), establishing a business entity and office location (\$9,400) and consultation for tailoring and installation of one Remote Object (\$15,000).

Associated time period necessary to develop Subject Invention:

Identification of at least one customer: 3 mos.

Development of an operational, custom Remote Object: 3-6 mos.

Petitioner will expend the necessary capital and resources to bring Remote Objects to commercialization.

9. Why will the grant of the above-requested waiver more effectively promote the development and the commercial utilization of the Subject Invention?

Currently the DOE and LBL are not interested in funding further development of the Subject Invention, nor is DOE or LBL interested in pursuing a patent application on the Subject Invention. All Remote Object work has been discontinued by ICSD. Therefore, if the above-requested waiver is not granted, NO development or commercial utilization of the Subject Invention will occur.

After receiving the DOE waiver, Petitioner plans to pursue a strategy of contracting with a small number of prominent flagship information providers to produce customized versions of Remote Objects to demonstrate the value of Remote Objects and provide public exposure to the technology.

Specifically identify any potential licensees or joint ventures interested in further development of the invention to commercialization. If the invention will be commercialized by a licensee, summarize the licensee's plans and intentions to develop the invention to a point of commercialization.

Petitioner cannot solicit "interest in further development of the invention to commercialization" without prejudicing patent rights. Consequently, Petitioner has refrained from disclosing the invention until proprietary rights can be secured. Such rights will be promptly secured once the petition is granted. However, the fact that Petitioner has filed this petition indicates his willingness to bring the product to market, and since the DOE and LBL do not plan to fund further development of the Subject Invention, the only means for the Subject Invention to reach the public is for the DOE to grant a waiver to Petitioner, thereby allowing Petitioner to obtain patent protection to protect his investment, an investment which must be made in order that the Subject Invention can be commercialized.

10. What will be the effect on competition and market concentration if the above-requested waiver is granted? Describe any competitive technologies or other factors which would reduce any anticompetitive efforts of granting the waiver. Would the acquisition of the waiver rights requested be likely to place the Petitioner in a preferred or dominant position in this field? Give reasons for your conclusions.

The industries which would be affected by the granting of the waiver would be the publishing and digital information service industries. Since the Subject Invention, Remote Objects, is but one of many means of remote access, no anticompetitive effects of a waiver are anticipated. For example, many software programs exist in the market for remote access, such as terminal emulators and network access protocols. Petitioner is not in a position, even if the waiver is granted, to reduce the competitive efforts of the many large companies which provide remote connection systems.

The granting of a waiver would put the Petitioner in a preferred position only with respect to patent rights to Remote Objects obtained by the Petitioner after a waiver is granted. Such rights would be no more than any other patent owner, but would provide the necessary protection to the Petitioner to justify the investments needed to bring the product to market.

11. Under what other contracts has the Petitioner worked or what other contracts has the Petitioner had with any Branch or Agency of the U.S. Government which include all or a part of the scope of work covered by this contract or which deal with the field of technology in which the Subject Invention lies or to which it relates.

None.

12. If the Government has already prepared a patent application, is petitioner willing to reimburse the Government for its expended costs, if any, in the preparation, filing, and prosecution of patent application(s) on the Subject Invention?

The Government has not prepared any patent applications on the Subject Invention, and indeed the DOE has indicated an unwillingness to pursue patent protection for the Subject Invention. Therefore, this question is not relevant for this particular petition.

13. If applicable, provide a statement of reasons why the petition was not timely filed or why a request for an extension of time to file the petition was not filed in a timely manner.

This petition is timely filed. While a timely filed "Disclosure and Record of Invention Form" was filed by Petitioner in September, 1990, only recently has both the DOE and LBL determined that no further Government interest in the Subject Invention exists.

Petitioner did receive a letter from the Livermore office of the DOE on October 15, 1991 indicating that the Petitioner should submit a petition for waiver of U.S. Government rights in the Subject Invention, however a petition at that time would have been improper. At that time, and at least until January, 1992, the Petitioner had funding proposals pending at LBL which would have provided further government resources for further development of the Subject Invention. Only when these funding proposals were rejected, could Petitioner properly file this petition.

The work under Contract (B) was extended to December 31, 1991, so independent of other activity, a petition would have been improper before that time. In fact, only in February of 1992 did Petitioner learn that no further funding of the project would occur.

14. Is the Petitioner aware of any governmental regulations which require or which might require use of the subject matter of the Subject Invention by the general public or a segment thereof? (If yes, explain.)

No.

15. Does the Subject Invention lie in or relate to a field of technology which concerns the public health, safety or welfare; (for example, the development of drugs, medical or safety instruments, anti-pollution devices or such other products that may have a bearing on health, safety or welfare of the general public). (If yes, explain.)

No.

16. If the Petitioner is a nonprofit educational institution, what is the technology transfer capability and program of the Petitioner?

Not Applicable. Petitioner is not a nonprofit educational institution.

17. Give any other facts the Petitioner believes will establish that the interests of the United States and the general public will best be served by the granting of this waiver. Sufficient information is required so that the Secretary can consider specifically each of the areas and objectives covered in Sec. 9(c), 9(d) and (e) of P.L. 93-577.

Under §§9(c)-(e) of P.L. 93-577 (as codified at 42 USC §5908(c)-(e), the Secretary of the DOE is charged with promoting the commercial utilization of the Subject Invention. If a waiver is not granted, no commercialization or further development of the Remote Objects technology will occur. This has been made clear by the DOE, as evidenced by the attached letter stating that the U.S. Government is not interested in proceeding with the filing of patent applications to protect the Subject Invention.

The University of California and LBL have also declined to pursue patent protection on the Subject Invention.

In contrast, if the waiver is granted, Petitioner can then begin patenting and marketing the Subject Invention. In attempting to get further funding from the U.S. Government, Petitioner has shown a willingness to foster the Subject Invention into a marketable product, and is now prepared to continue his efforts outside the auspices of the DOE.

If the invention was made in the course of or under a contract or subcontract of the Naval Nuclear Propulsion Program or the weapons programs or other atomic energy defense activities of the Department of Energy, the considerations of paragraph (b) of Section 3131 of the 1987 Defense Authorization Act [as codified at 42 USC §7261a(b)] shall also be addressed. These are as follows:

- (a) whether national security will be compromised;

Given the nature of the Subject Invention, the granting of this waiver will not affect, much less compromise, the national security.

- (b) whether sensitive technical information (whether classified or unclassified) under the Naval Nuclear Propulsion Program or the nuclear weapons programs or other atomic energy defense activities of the Department of Energy for which dissemination is controlled under Federal statutes and regulations will be released to unauthorized persons;

The Subject Invention does not involve sensitive technical information, classified or unclassified, under either the Naval Nuclear Propulsion Program, nuclear weapons programs, or atomic energy defense activities of the Department of Energy.

- (c) whether an organizational conflict of interest contemplated by Federal statutes and regulations will result; and

Petitioner does not foresee any organizational conflicts of interest in the granting of this waiver.

- (d) whether waiving such rights will adversely affect the operation of the Naval Nuclear Propulsion Program or the nuclear weapons programs or other atomic energy defense activities of the Department of Energy.

The granting of this waiver is expected to have no effect on the operation of the Naval Nuclear Propulsion Program, or the nuclear weapons programs or other atomic energy defense activities of the Department of Energy.

18. State below the name, address and telephone number of the person to whom correspondence is to be directed.

*Philip H. Albert
Townsend and Townsend
One Market Plaza, Steuart Tower
San Francisco, CA 94105*

The facts set forth in this request for waiver are within the knowledge of Petitioner and are submitted with the intention that the Secretary or his designee rely on them in reaching the waiver determination.

Respectfully submitted,



(Signature)

Allan M. Konrad, Petitioner

Date submitted to DOE:

14 MAY 92



Department of Energy
Office of Patent Counsel Livermore Office
P O. Box 808 L-376
Livermore, CA 94550
(510) 422-4367
(FTS) 532-4367

JUN 08 1992

Mr. Allan M. Konrad
P.O. Box 4023
Berkeley, California 94704

**SUBJECT: WAIVER REQUEST FOR SUBJECT INVENTION ENTITLED:
"REMOTE OBJECTS, REMOTE DATABASE OBJECT"
DOE DOCKET NO. S-73,985 (RL-11,508)
LBL DOCKET NO. IB-880
REPORTED UNDER CONTRACT NO. DE-AC03-76SF00098
WAIVER NO. W(I)-92-037 (SAN-609)**

Dear Mr. Levy:

Receipt of the above waiver request is acknowledged. The waiver request will be processed in due course in accordance with DOE policy and procedure.

If you have any questions, please contact this Office at (415) 422-4367.

Sincerely,

A handwritten signature in black ink, appearing to read "Miguel A. Valdes".

Miguel A. Valdes
Patent Attorney

MAV:amm



Department of Energy
Office of Patent Counsel Livermore Office
P O Box 808 L-376
Livermore, CA 94550
(510) 422-4367
(FTS) 532-4367

JUN 08 1992

Michael P. Hoffman, Assistant for Waivers,
Office of the Assistant General for Patents

SUBJECT: PETITION FOR IDENTIFIED WAIVER BY
ALLAN M. KONRAD
DOE DOCKET NO. S-73,985 (RL-11,508)
LLNL DOCKET NO. IB-880
REPORTED UNDER CONTRACT DE-AC03-76SF00098
WAIVER NO. W(I)-92-037, SAN-609

Per your instructions in IPI-II-5-79, attached is a copy of the subject
Petition for Waiver which was received in this Office on May 15, 1992.

A handwritten signature in cursive script that reads "Janet L. Rego".

Janet L. Rego
Contract Examiner

Encl: Petition for Waiver

LAW OFFICES
TOWNSEND AND TOWNSEND

ANTHONY B. DIEPENBROCK
DIRKS B. FOSTER
WILLIAM MICHAEL HYNES, P.C.
ROGER L. COOK
WARREN P. KUJAWA
ROBERT J. BENNETT
KENNETH R. ALLEN
DAVID N. SLONE
JAMES F. HANN
M. HENRY HEINES
WILLIAM M. SMITH
MARK A. STEINER
PAUL C. HAUGHEY
THEODORE G. BROWN, III
GUY W. CHAMBERS
G. HOPKINS GUY, III
VERNON A. NORVIEL
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ELLIOT B. ARONSON
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JAMES M. HESLIN
GARY T. AXA
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PHILIP H. ALBERT
J. STEVEN WHITAKER*
TIMOTHY J. LITGOW
JEFFREY J. GRAINGER
EUGENIA GARRETT-WACKOWSKI

CHARLES E. TOWNSEND, JR.
JOHN L. MCGANNON
HENRY K. WOODWARD
OF COUNSEL

* NOT ADMITTED IN CALIFORNIA

Miguel A. Valdes
Office of Patent Counsel, Livermore Office
Department of Energy
P.O. Box 808/L-376
Livermore, CA 94550

Re: DOE PATENT CASE NO. S-73,985 (RL-11508)
"REMOTE DATABASE OBJECT", Allan M. Konrad, inventor
Our File: 15340-1

Dear Mr. Valdes:

Enclosed is a Petition for Waiver of Domestic and Foreign Rights to an Identified Invention, for your review and recommendation to the Secretary of the Department of Energy.

As the Petition and accompanying materials show, the above cited invention is one which does not interest anyone at the DOE or LBL, but one which the petitioner and inventor, Mr. Allan M. Konrad, is very interested in developing and marketing. Mr. Konrad is interested in obtaining a waiver from the DOE in order to proceed with filing of a patent on the invention and then commercialization of the invention.

Because of the nature of the information services and software industries where this invention is situated, Mr. Konrad respectfully requests that this Petition be expedited wherever possible. New products in this area are introduced literally every day, thus rapidly bringing this product to market is critical to its success as a tool for computer users. If this Petition is delayed, it is possible that other, less advanced tools will become standard in the information

PATENTS, TRADEMARKS, AND COPYRIGHTS

TWENTIETH FLOOR
STEUART STREET TOWER
ONE MARKET PLAZA
SAN FRANCISCO, CA 94105-1492
(415) 543-9600
FAX (415) 543-5043

PALO ALTO OFFICE
379 LYTTON AVENUE
PALO ALTO, CA 94301-1431
(415) 326-2400
PALO ALTO FAX (415) 326-2422

SEATTLE OFFICE
1201 THIRD AVENUE
SUITE 2600
SEATTLE, WA 98101-3000
(206) 467-9600
SEATTLE FAX (206) 823-6793

CHARLES E. TOWNSEND (1904-1944)
STEPHEN S. TOWNSEND (1942-1986)

WRITER'S DIRECT DIAL NUMBER:

REC'D. by D.O.E. OFFICE
1992 MAY 15 P 3:29
PATENT COUNSEL AT LBL

May 14, 1992

Miguel A. Valdes

May 14, 1992

Page 2

services industry. While these tools may be inferior, computer users cannot easily abandon their training investment in favor of superior products. Thus, not only would Mr. Konrad appreciate prompt attention to this Petition, but the computing public would as well.

The following exhibits, in addition to the Petition are attached:

Disclosure and Record of Invention Form - This document was submitted to LBL and the DOE in accordance with Mr. Konrad's obligations to disclose inventions in the course of his work at LBL, and it briefly describes the scope of the invention for which the Waiver is sought.

Your letter of October 15, 1991 - This letter indicates the DOE's lack of interest in filing a patent application on the present invention.

Letter from LBL of April 28, 1992 - This letter indicates LBL's waiver of rights in the present invention in favor of Mr. Konrad.

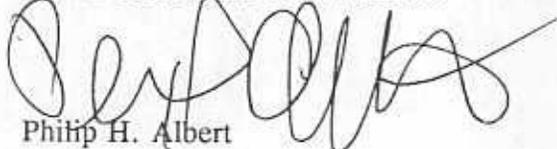
Two Field Task Proposals - These proposals further describe the scope of the present invention. The DOE has declined to fund either proposal, further indicating the DOE's lack of interest in the present invention.

Despite the DOE's and LBL's lack of interest in the present invention, Mr. Konrad still believes that, as a commercial product, the present invention would be welcomed in the marketplace. To do so, Mr. Konrad plans to expend personal time and money to see that a product is developed; however such investments and products await a favorable response from you and the DOE.

To assist you quick review of this Petition, each question is fully answered, but kept brief. However, if there is any additional information you may need, feel free to call me.

Very truly yours,

TOWNSEND and TOWNSEND



Philip H. Albert

PHA/dim

Enclosures

cc: Allan M. Konrad (w/encl.)

AGREEMENT No. EXP-90-07

between

CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY

and

LAWRENCE BERKELEY LABORATORY

Pursuant to authorization from the CIEE Research Board, the CIEE Director has determined and directs that the following project shall be funded with CIEE funds.

Project Title: Low Heat Loss, Non-CFC-Based Appliance and Building Insulation
Principal Investigator: Stephen Selkowitz and Dariush Arasteh
Period of Performance: 15 August 1990 to 14 August 1991
Amount of Award: \$50,000
LBL Proposal No.: _____ CIEE Pon No.: 1989 Exploratory Solicitation, UERG

LBL hereby agrees to perform work as detailed in Attachment 1, "Annual Operating Plan." The performance of this project will be in accordance with the Joint Participation Agreement for Work on End-Use Conservation Program, and with the CIEE Management Plan. Management and reporting requirements will be observed as outlined in Attachment 2.

Jeffrey P. Havis - for Attr 10 August 1990
Director, California Institute for Energy Efficiency Date

ACCEPTED AND AGREED TO:

Janna Don 8/17/90
for The Regents of the University of California Date
Lawrence Berkeley Laboratory

ATTACHMENT 1 — ANNUAL OPERATING PLAN
to
AGREEMENT No. EXP-90-07
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

Project Title: Low Heat Loss, Non-CFC Based Appliance and Building
 Insulation

LBL Principal Investigators: Stephen Selkowitz and Dariush Arasteh

BACKGROUND AND PURPOSE

This project will assess the potential for using a new insulating material in appliances and buildings. The material can be manufactured at a competitive cost, does not use any CFCs or other environmentally unstable components, and can have performance levels between R8 and R16 hr-ft²-F/Btu per inch, thus improving upon the performance of today's standard R8 per inch CFC blown insulation. This new multi-layer insulating panel is functionally different from other proposed insulating materials, and is potentially much less expensive. LBL will use finite element heat transfer modeling and an infrared video imaging system to analyze the thermal performance of specific alternative design concepts, to allow modeling, building, and testing of several prototype designs.

TECHNICAL SCOPE OF WORK

Task 1: Literature Review

Review existing literature on appliance insulation and relevant insulating systems.

Task 2: Components

Research and collect possible components for use in prototype panels. These include gases and gas mixtures, low-emittance surfaces, honeycombs, etc.

Task 3: Thermal Modeling

Model the performance of alternative prototype designs to determine the best-performing designs. Special consideration will be given to edge details in order to avoid thermal bridges.

Task 4: Design Prototypes

Discuss concept and design prototypes with one or more appliance manufacturers, using results from Tasks 1-3. Identify optimum prototype designs and produce prototypes for testing.

Task 5: Thermal Testing

Test prototypes with infrared imaging system. Based on test data, re-design and re-analyze prototypes as described in Task 3.

Task 6: Workshop and Final Report

A final report will be distributed to industry representatives, documenting results of the research and outlining a plan for a cost-shared industry development program. Meetings with utility staff will be conducted to determine whether this insulation concept has applicability to other utility interests. Workshops and/or individual meetings will be held with appliance manufacturers to describe results and explore future collaborative projects leading to commercial development.

DELIVERABLES

1. Quarterly reports as noted in Attachment 2.
2. Draft final report. Due date: 15 July 1991
3. Final Report. Due date: 14 August 1991

PERIOD OF PERFORMANCE

15 August 1990 to 14 August 1991

ESTIMATED PROPOSAL BUDGET

TITLE: Low Heat Loss, Non-CFC-Based Appliance and Building Insulation

A. SALARIES AND WAGES*	Name	Pay Cat.	No. FTE	Requested Budget
Senior Personnel				
Principal Investigator	S. Salkowitz	9456	0.03	2,418
Others	D. Arasteh	9453	0.13	6,294
	Res. Assoc.	9446	0.43	10,660
			Total Salaries	19,372
B. FRINGE BENEFITS @	24.3%			2,113
B.1 Res.Assoc. FRINGE@	9.0%			959
C. TOTAL SALARIES AND FRINGE				22,444
D. PERMANENT EQUIPMENT				0
E. EXPENDABLE EQUIPMENT AND SUPPLIES				6,458
F. TRAVEL				
	Domestic (1 RT between Chicago/LBL)			850
	Foreign			0
G. PUBLICATION COSTS				0
H. COMPUTER COSTS (if charged as direct cost)				0
I. OTHER DIRECT COSTS				0
	Shop Burden		0	
	Consultants, Other		0	
	Scientific Burden		3,035	
	(@ 10.2% of lines C to I - D)			3,035
J. TOTAL DIRECT COSTS (lines C to I)				32,787
K. INDIRECT COSTS AT **	52.5% of Line J - Line D			17,213
L. TOTAL LABORATORY COSTS (lines J and K)				50,000

*Rates based on payroll group averages in accordance with costing practice for all DOE programs.

**Estimate of 52.5% of MTDC used here; prevailing rate would be used for actual billing.

Note: Within the Applied Science Division, the Center for Building Science coordinates activities among various research groups and provides a focal point for communication regarding building science projects. A small portion of the Center costs is included in the budget as part of Expendable Equipment and Supplies.

ATTACHMENT 2
PROJECT MANAGEMENT AND REPORTING REQUIREMENTS
to
AGREEMENT No. EXP-90-07
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

PROJECT MANAGEMENT

Principal Investigator — The Principal Investigator is responsible for the technical and financial management of the project, and for ensuring that milestones and deliverables are met in a timely and satisfactory manner.

CIEE Technical Liaison — The following CIEE staff member has been designated to serve as primary technical liaison to this project:

Max Sherman
LBL, Mail Stop 90-3074
486-4022

The Technical Liaison will be responsible for monitoring project progress, keeping the CIEE Planning Committee informed of project status and obtaining their technical input, reviewing reports for content and compliance with CIEE requirements, providing feedback to the Principal Investigator, and approving payment of invoices.

Administrative Contact — The following individual is responsible for CIEE administration of this agreement:

Cindy Polansky
LBL, Mail Stop 90-2024
486-4642

Annual Operating Plan — The goals, objectives, technical approach, tasks, deliverables, and budget represent the Annual Operating Plan. This will be the basis for all reports on project status, and for monitoring by the CIEE Technical Liaison.

Changes in Work Scope or Budget — Any changes proposed by an investigator in the scope of work, deliverables, timetable, or budget must be submitted in advance to the CIEE Administrative Contact, with a copy to the CIEE Technical Liaison.

MEETING ATTENDANCE REQUIRED

Annual Presentation — The Principal Investigator will be expected to participate in at least one workshop or meeting with CIEE staff each year, to present findings and discuss the status of his/her project with CIEE staff. Members of the CIEE

Planning Committee and interested researchers may also be invited to participate in these meetings.

REPORTS and DELIVERABLES

Deliverables — Copies of all deliverables will be sent to the CIEE Technical Liaison. The project timetable shall allow for the technical review of each major deliverable by the CIEE Technical Liaison, and for revisions as appropriate.

Quarterly Reports — The Principal Investigator is responsible for submitting a one-page quarterly report to the CIEE Technical Liaison, discussing status of the project and any anticipated problems or changes proposed in the agreed-upon Annual Operating Plan. A suggested report format is attached.

Final Reports — The Principal Investigator is responsible for submitting a draft final report to the CIEE Technical Liaison for review and comment. The final report will be due within one month of receipt of CIEE comments on the draft final report. Copies of the final report are to be sent to (1) the CIEE Administrative Contact and (2) the CIEE Technical Liaison. The report will provide a comprehensive summary of work done under this Agreement, including discussion of results, assessment of the project in terms of its goals and objectives, and assessment of future research needs.

Disclaimer — All reports and publications based on work funded under this Agreement shall include the following statement:

The research reported here was funded by the California Institute for Energy Efficiency (CIEE), a research unit of the University of California. Publication of research results does not imply CIEE endorsement of or agreement with these findings, nor that of any CIEE sponsor.

(Suggested Format for CIEE Quarterly Reports for Exploratory Research)

CIEE QUARTERLY PROGRESS REPORT

October through December 1990

Project Title: Energy Efficiency of Widgets
Principal Investigator: L. Green, (209) 333-3333
University of the West
2305 College Way
Lakeside, California 93662
Project Period: 1 July 1990 through 30 June 1991

Project Status:

Major activities and accomplishments during this quarter.

Major Problems or Changes:

If none, state so. Request approval for any delays or significant changes.

Fiscal Status:

Total Funding:
Costs To Date:
Balance Remaining:

Discussion: Include if needed; address any major budget problems.

September 25, 2000

To: Roseann Pelzner

Re: FOIA Request 2000-OK-50

Subject: Agreements: DD-90-03, DD-90-04, DD-90-05, DD-90-07, DD-90-08,
DD-90-09, DD-90-10, DD-90-11, Notice of Intellectual
Property Rights, and Janna Tom letter of 24 Jan 91

Roseann,

The attached records (identified above) obtained from the San Bruno Records Reserve Center related to CIEE Agreements with LBNL are releasable.



William C. Daubenspeck
Patent Attorney



AGREEMENT No. EXP-90-09
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

Pursuant to authorization from the CIEE Research Board, the CIEE Director has determined and directs that the following project shall be funded with CIEE funds.

Project Title: Analysis of Energy Use in Building Services
of the Industrial Sector in California
Principal Investigator: Hashem Akbari and Ashok Gadgil
Period of Performance: 29 August 1990 to 30 September 1991
Amount of Award: \$50,000
LBL Proposal No.: _____ CIEE Pon No.: Exploratory solicitation,
1989/UERG

LBL hereby agrees to perform work as detailed in Attachment 1, "Annual Operating Plan." The performance of this project will be in accordance with the Joint Participation Agreement for Work on End-Use Conservation Program, and with the CIEE Management Plan. Management and reporting requirements will be observed as outlined in Attachment 2.

Curt Rosenfeld _____ 13 August 1990
Director, California Institute for Energy Efficiency Date

ACCEPTED AND AGREED TO:

Janna Chen _____ 8/29/90
for The Regents of the University of California Date
Lawrence Berkeley Laboratory

ATTACHMENT 1 — ANNUAL OPERATING PLAN
to
AGREEMENT No. EXP-90-09
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

Project Title: Analysis of Energy Use in Building Services of the Industrial Sector in California

Principal Investigator: Ashok Gadgil and Hashem Akbari

BACKGROUND AND PURPOSE

Many California firms operate small and medium-sized facilities, often in buildings used simultaneously or interchangeably in time for commercial and industrial activities. In these industrial subsectors, the energy required for "building services" to provide occupant comfort and necessities (e.g., lighting, HVAC, office equipment, computers) may be at least as important as the more familiar process energy requirements—especially for electricity and on-peak demand. Electricity for these building services is often priced as if it were baseloaded, like processes uses; in reality this load varies significantly according to occupancy schedules and weather-induced cooling and heating loads, much as in any commercial building. This project represents a preliminary investigation of the energy requirements and opportunities for conservation and load-shaping in industrial building services.

TECHNICAL SCOPE OF WORK

Task 1: Case Studies

Measure and analyze building energy use in three selected facilities as case studies. If possible, facilities are to be selected from those already audited, and will focus on growth-sector California industries. Compare analysis with existing audit records where possible; indicate possible data gaps and methodological errors; and quantify conservation potentials at these sites.

Task 2: Analyze Regional Utility Audit Data

Analyze extensive regional utility audit data to determine the non-process end uses of energy and their potential for conservation and load-shaping opportunities. Analysis will address those general policies affecting energy use patterns such as time-of-use pricing, utilities' rebate programs, submetering of process loads, and daily and seasonal variation of energy and power use.

Task 3: Impact on Non-Process Needs

Determine the extent to which the industrial processes taking place within a

structure impact the non-process needs, in particular heating, ventilating, and cooling requirements. This may require comparison of energy use data to similar non-industrial buildings.

DELIVERABLES

1. Quarterly reports as noted in Attachment 2.
2. Draft final report. Due date: 31 August 1991
3. Final report. Due date: 30 September 1991

PERIOD OF PERFORMANCE

29 August 1990 to 30 September 1991

Estimated Proposal Budget

TITLE: Analysis of Energy Use in Building Services of the
 Industrial Sector in California

A. SALARIES AND WAGES*	Name	Pay Cat.	FTE	Requested Budget
Senior Personnel				
Principal Investigators	H. Akbari	9452	0.05	3,000
Others	A. Gadgil	9452	0.05	3,000
	Grad. Student	9459	0.62	14,780
	Adm. Svcs.	9455	0.07	2,176
	Total			
	Salaries			22,956

B. FRINGE BENEFITS @	24.3%			1,989
B.1 GSRA FR. BENEFITS @	1.4%			207
C. TOTAL, SALARIES AND FRINGE				25,152

D. PERMANENT EQUIPMENT				0
				=====
E. EXPENDABLE EQUIPMENT AND SUPPLIES				1,600
F. TRAVEL				
	Domestic			1,000
	Foreign			0
G. PUBLICATION COSTS				1,000
H. COMPUTER COSTS (if charged as direct cost)				1,000
I. OTHER DIRECT COSTS				
	Shop Burden		0	
	Consultants, Other		0	
	Scientific Burden		3,035	3,035
	(@ 10.2% of lines C to I - D)			

J. TOTAL DIRECT COSTS (lines C to I)				32,787
K. INDIRECT COSTS AT **	52.5% of Line J - Line D			17,213

L. TOTAL LABORATORY COSTS (lines J and K)				50,000
				=====

*Rates based on Payroll group Averages in accordance with costing practice for all DOE programs.

**Estimate of 52.5% of MTDC used here; prevailing rate would be used for actual billing. Overhead rate = composite across fiscal years. FY90 through FY93 @ 52.5%.

The Center for Building Science coordinates activities among various research groups and provides a focal point for communication regarding building science projects. A small portion of the Center costs is included in this budget as part of "Expendable Equipment and Supplies."

ATTACHMENT 2
PROJECT MANAGEMENT AND REPORTING REQUIREMENTS
to
AGREEMENT No. EXP-90-09
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

PROJECT MANAGEMENT

Principal Investigator — The Principal Investigator is responsible for the technical and financial management of the project, and for ensuring that milestones and deliverables are met in a timely and satisfactory manner.

CIEE Technical Liaison — The following CIEE staff member has been designated to serve as primary technical liaison to this project:

Max Sherman
LBL, Mail Stop 90-3074
486-4022

The Technical Liaison will be responsible for monitoring project progress, keeping the CIEE Planning Committee informed of project status and obtaining their technical input, reviewing reports for content and compliance with CIEE requirements, providing feedback to the Principal Investigator, and approving payment of invoices.

Administrative Contact — The following individual is responsible for CIEE administration of this agreement:

Cindy Polansky
LBL, Mail Stop 90-2024
486-4642

Annual Operating Plan — The goals, objectives, technical approach, tasks, deliverables, and budget represent the Annual Operating Plan. This will be the basis for all reports on project status, and for monitoring by the CIEE Technical Liaison.

Changes in Work Scope or Budget — Any changes proposed by an investigator in the scope of work, deliverables, timetable, or budget must be submitted in advance to the CIEE Administrative Contact, with a copy to the CIEE Technical Liaison.

MEETING ATTENDANCE REQUIRED

Annual Presentation — The Principal Investigator will be expected to participate in at least one workshop or meeting with CIEE staff each year, to present findings and discuss the status of his/her project with CIEE staff. Members of the CIEE

Planning Committee and interested researchers may also be invited to participate in these meetings.

REPORTS and DELIVERABLES

Deliverables — Copies of all deliverables will be sent to the CIEE Technical Liaison. The project timetable shall allow for the technical review of each major deliverable by the CIEE Technical Liaison, and for revisions as appropriate.

Quarterly Reports — The Principal Investigator is responsible for submitting a one-page quarterly report to the CIEE Technical Liaison, discussing status of the project and any anticipated problems or changes proposed in the agreed-upon Annual Operating Plan. A suggested report format is attached.

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Disclaimer — All reports and publications based on work funded under this Agreement shall include the following statement:

The research reported here was funded by the California Institute for Energy Efficiency (CIEE), a research unit of the University of California. Publication of research results does not imply CIEE endorsement of or agreement with these findings, nor that of any CIEE sponsor.

(Suggested Format for CIEE Quarterly Reports for Exploratory Research)

CIEE QUARTERLY PROGRESS REPORT

October through December 1990

Project Title: Energy Efficiency of Widgets
Principal Investigator: L. Green, (209) 333-3333
University of the West
2305 College Way
Lakeside, California 93662
Project Period: 1 July 1990 through 30 June 1991

Project Status:

Major activities and accomplishments during this quarter.

Major Problems or Changes:

If none, state so. Request approval for any delays or significant changes.

Fiscal Status:

Total Funding:
Costs To Date:
Balance Remaining:

Discussion: Include if needed; address any major budget problems.

AMENDMENT No. 1 to AGREEMENT Nos.

B-90-01A
B-90-02A
B-90-03B
EXP-90-05
EXP-90-06
EXP-90-07
EXP-90-08
EXP-90-09
EXP-90-10
EXP-90-11
DD-90-04
DD-90-05

between

CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY

and

LAWRENCE BERKELEY LABORATORY

The parties hereby mutually agree to amend the above Agreements as follows:

Attachment 2, Project Management and Reporting Requirements, is amended to add:

TERMINATION: This Agreement may be terminated without cause by either party upon thirty (30) days prior written notice to the other party. CIEE shall reimburse LBL for non-cancellable obligations, and for allowable costs incurred to date of termination. LBL shall take reasonable measures to mitigate its costs and shall return to CIEE all unliquidated advance payments.

All other terms and conditions remain the same.

In witness whereof the parties hereto have executed this amendment to the Agreement.

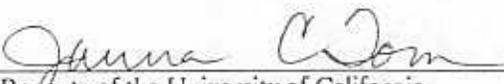


Director, California Institute for Energy Efficiency

12/17/90

Date

ACCEPTED AND AGREED TO:



for The Regents of the University of California
Lawrence Berkeley Laboratory

12/17/90

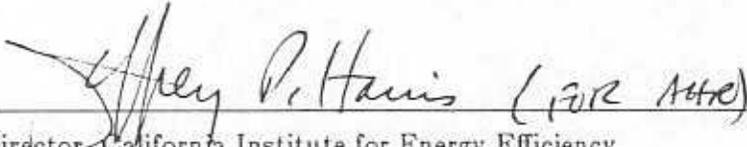
Date

AGREEMENT No. EXP-90-08
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

Pursuant to authorization from the CIEE Research Board, the CIEE Director has determined and directs that the following project shall be funded with CIEE funds.

Project Title: An Assessment of Residential Evaporative Cooling Technologies in California
Principal Investigator: Ron Ritschard and Joe Huang
Period of Performance: 13 August 1990 through 31 August 1991
Amount of Award: \$50,000
LBL Proposal No.: _____ CIEE Pon No.: Exploratory solicitation

LBL hereby agrees to perform work as detailed in Attachment 1, "Annual Operating Plan." The performance of this project will be in accordance with the Joint Participation Agreement for Work on End-Use Conservation Program, and with the CIEE Management Plan. Management and reporting requirements will be observed as outlined in Attachment 2.

 (for Attor) 8 August 1990
Director, California Institute for Energy Efficiency Date

ACCEPTED AND AGREED TO:

 8/10/90
for The Regents of the University of California Date
Lawrence Berkeley Laboratory

ATTACHMENT 1 — ANNUAL OPERATING PLAN
to
AGREEMENT No. EXP-90-08
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

Project Title: An Assessment of Residential Evaporative Cooling Technologies in California

LBL Principal Investigators: Ron Ritschard
Joseph Huang

BACKGROUND AND PURPOSE

The use of evaporative coolers is an energy-conserving alternative to conventional air conditioning that is particularly suited to most climates in California. The adoption of this technology has been hampered, however, by lack of information as to its applicability and economic benefit for specific building types. The overall goal of this project is to evaluate the major issues important to widespread implementation of evaporative cooling in single family residences. The results will indicate the future potential of evaporative cooling as a major cooling strategy in California.

TECHNICAL SCOPE OF WORK

Task 1: Contacts and Data Collection

- a. LBL will contact the Title 24 representative at the California Energy Commission (CEC) and solicit input on this project.
- b. LBL will contact equipment manufacturers to gather the latest cost, design, technical and performance data for direct and indirect coolers available in California.
- c. LBL will contact the evaporative cooling industry, California utilities, and ASHRAE to solicit their comments and participation in this effort.

Task 2: Technical and Economic Analysis

Working with the CEC representative, LBL will develop a workplan for the economic analysis to allow integration of an evaporative cooling option in Title 24 compliance. LBL will perform parametric simulations of whole-building performance for a prototype house in each climate zone, using the DOE-2 program modified to include an evaporative cooling option. Results will be analyzed and a life-cycle cost economic model will be applied to determine cost-effective conservation levels with evaporative cooling which meet Title 24 requirements. A method will be developed for trading off other efficiency improvements with evaporative

cooling. Results will be discussed with the CEC representative.

Task 3: Preliminary Assessment of New Technologies

LBL will analyze the impact on whole-building performance of new evaporative cooling technologies identified in Subtask 1b. Simulation results from Task 2 will be surveyed to identify any other technologies which may improve equipment and building performance. The Chen model and DOE-2 will be used to simulate performance of these new technologies, and results will be compared with previous results to determine effectiveness.

Task 4: Identification and Preliminary Analysis of Barriers

LBL will address the comfort issue by analyzing hourly time-scale output from DOE-2 simulations. A comparison will be made of indoor temperature and humidity levels among houses with evaporative cooling, houses with conventional cooling, and with accepted comfort standards. The excess residential water consumption due to evaporative coolers will be determined and compared with projected demands for other new uses of water. Existing single family building codes will be analyzed and potential issues for evaporative cooling will be summarized. A draft summary report to CIEE, CEC, the utilities, and the evaporative cooling industry will be circulated for review and comment.

DELIVERABLES

1. Quarterly reports as noted in Attachment 2.
2. Draft Summary Report: Technical and economic analysis of residential evaporative cooling in California, describing its impact on the Title 24 Building Energy Efficiency Standards and documenting a method for inclusion of evaporative cooling in those standards. Report will include a scope of new technologies to increase the performance of evaporative cooling in California, and a summary of potential barriers to large-scale implementation of this technology. Due date: 31 July 1991
3. Final Summary Report. Due date: 31 August 1991

PERIOD OF PERFORMANCE

13 August 1990 through 31 August 1991.

Estimated Proposal Budget

TITLE: An Assessment of Residential Evaporative Cooling Technologies in California

A. SALARIES AND WAGES*	Name	Pay Cat.	FTE	Requested Budget
Senior Personnel				
Principal Investigators				
	Ron Ritschard	9456	0.02	1,624
	Y. Joe Huang	9453	0.17	8,240
Others				
	Grad. Student	9459	0.30	7,053
	Adm. Svcs.	9455	0.07	2,180
	Total			
	Salaries			19,097

B. FRINGE BENEFITS @	24.3%			2,923
B.1 GSRA FR. BENEFITS @	1.4%			99
C. TOTAL, SALARIES AND FRINGE				22,119

D. PERMANENT EQUIPMENT				0
E. EXPENDABLE EQUIPMENT AND SUPPLIES				3,833
F. TRAVEL				300
	Domestic			300
	Foreign			0
G. PUBLICATION COSTS				2,000
H. COMPUTER COSTS (if charged as direct cost)				1,500
I. OTHER DIRECT COSTS				3,035
	Shop Burden	0		
	Consultants, Other	0		
	Scientific Burden	3,035		3,035
	(@ 10.2% of lines C to I - D)			

J. TOTAL DIRECT COSTS (lines C to I)				32,787
K. INDIRECT COSTS AT **	52.5%	of Line J - Line D		17,213

L. TOTAL LABORATORY COSTS (lines J and K)				50,000
				=====

*Rates based on Payroll group Averages in accordance with costing practice for all DOE programs.

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The Center for Building Science coordinates activities among various research groups and provides a focal point for communication regarding building science projects. A small portion of the Center costs is included in this budget as part of "Expendable Equipment and Supplies."

ATTACHMENT 2
PROJECT MANAGEMENT AND REPORTING REQUIREMENTS
to
AGREEMENT No. EXP-90-08
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

PROJECT MANAGEMENT

Principal Investigator — The Principal Investigator is responsible for the technical and financial management of the project, and for ensuring that milestones and deliverables are met in a timely and satisfactory manner.

CIEE Technical Liaison — The following CIEE staff member has been designated to serve as primary technical liaison to this project:

Max Sherman
LBL, Mail Stop 90-3074
486-4022

The Technical Liaison will be responsible for monitoring project progress, keeping the CIEE Planning Committee informed of project status and obtaining their technical input, reviewing reports for content and compliance with CIEE requirements, providing feedback to the Principal Investigator, and approving payment of invoices.

Administrative Contact — The following individual is responsible for CIEE administration of this agreement:

Cindy Polansky
LBL, Mail Stop 90-2024
486-4642

Annual Operating Plan — The goals, objectives, technical approach, tasks, deliverables, and budget represent the Annual Operating Plan. This will be the basis for all reports on project status, and for monitoring by the CIEE Technical Liaison.

Changes in Work Scope or Budget — Any changes proposed by an investigator in the scope of work, deliverables, timetable, or budget must be submitted in advance to the CIEE Administrative Contact, with a copy to the CIEE Technical Liaison.

MEETING ATTENDANCE REQUIRED

Annual Presentation — The Principal Investigator will be expected to participate in at least one workshop or meeting with CIEE staff each year, to present findings and discuss the status of his/her project with CIEE staff. Members of the CIEE

Planning Committee and interested researchers may also be invited to participate in these meetings.

REPORTS and DELIVERABLES

Deliverables — Copies of all deliverables will be sent to the CIEE Technical Liaison. The project timetable shall allow for the technical review of each major deliverable by the CIEE Technical Liaison, and for revisions as appropriate.

Quarterly Reports — The Principal Investigator is responsible for submitting a one-page quarterly report to the CIEE Technical Liaison, discussing status of the project and any anticipated problems or changes proposed in the agreed-upon Annual Operating Plan. A suggested report format is attached.

Final Reports — The Principal Investigator is responsible for submitting a draft final report to the CIEE Technical Liaison for review and comment. The final report will be due within one month of receipt of CIEE comments on the draft final report. Copies of the final report are to be sent to (1) the CIEE Administrative Contact and (2) the CIEE Technical Liaison. The report will provide a comprehensive summary of work done under this Agreement, including discussion of results, assessment of the project in terms of its goals and objectives, and assessment of future research needs.

Disclaimer — All reports and publications based on work funded under this Agreement shall include the following statement:

The research reported here was funded by the California Institute for Energy Efficiency (CIEE), a research unit of the University of California. Publication of research results does not imply CIEE endorsement of or agreement with these findings, nor that of any CIEE sponsor.

(Suggested Format for CIEE Quarterly Reports for Exploratory Research)

CIEE QUARTERLY PROGRESS REPORT

October through December 1990

Project Title: Energy Efficiency of Widgets
Principal Investigator: L. Green, (209) 333-3333
University of the West
2305 College Way
Lakeside, California 93662
Project Period: 1 July 1990 through 30 June 1991

Project Status:

Major activities and accomplishments during this quarter.

Major Problems or Changes:

If none, state so. Request approval for any delays or significant changes.

Fiscal Status:

Total Funding:
Costs To Date:
Balance Remaining:

Discussion: Include if needed; address any major budget problems.

AMENDMENT No. 1 to AGREEMENT Nos.

B-90-01A
B-90-02A
B-90-03B
EXP-90-05
EXP-90-06
EXP-90-07
EXP-90-08
EXP-90-09
EXP-90-10
EXP-90-11
DD-90-04
DD-90-05

between

CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY

and

LAWRENCE BERKELEY LABORATORY

The parties hereby mutually agree to amend the above Agreements as follows:

Attachment 2, Project Management and Reporting Requirements, is amended to add:

TERMINATION: This Agreement may be terminated without cause by either party upon thirty (30) days prior written notice to the other party. CIEE shall reimburse LBL for non-cancellable obligations, and for allowable costs incurred to date of termination. LBL shall take reasonable measures to mitigate its costs and shall return to CIEE all unliquidated advance payments.

All other terms and conditions remain the same.

In witness whereof the parties hereto have executed this amendment to the Agreement.



Director, California Institute for Energy Efficiency

12/17/90

Date

ACCEPTED AND AGREED TO:



for The Regents of the University of California
Lawrence Berkeley Laboratory

12/17/90

Date

AGREEMENT No. EXP-90-10
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

Pursuant to authorization from the CIEE Research Board, the CIEE Director has determined and directs that the following project shall be funded with CIEE funds.

Project Title: High-Albedo Materials for Reducing Building Cooling Energy Use
Principal Investigator: Joe Huang and Hashem Akbari
Period of Performance: 22 August 1990 to 30 September 1991
Amount of Award: \$50,000
LBL Proposal No.: _____ CIEE Pon No.: 1989 Exploratory solicitation/UERG

LBL hereby agrees to perform work as detailed in Attachment 1, "Annual Operating Plan." The performance of this project will be in accordance with the Joint Participation Agreement for Work on End-Use Conservation Program, and with the CIEE Management Plan. Management and reporting requirements will be observed as outlined in Attachment 2.

Carl Rosenfeld 13 August 1990
Director, California Institute for Energy Efficiency Date

ACCEPTED AND AGREED TO:

Janna Don 8/27/90
for The Regents of the University of California Date
Lawrence Berkeley Laboratory

ATTACHMENT 1 — ANNUAL OPERATING PLAN
to
AGREEMENT No. EXP-90-10
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

Project Title: High Albedo Materials for Reducing Building Cooling Energy Use

Principal Investigator: Joe Huang and Hashem Akbari

BACKGROUND AND PURPOSE

Most American cities are steadily warming up at 0.25 to 1 °F per decade; it is estimated that 5-10% of urban peak electric demand today is used for additional air conditioning just to compensate for this warming, known as heat islands. Preliminary analyses suggest that major urban-scale changes in surface albedo (reflectance) of buildings and pavements can reduce peak cooling loads in many American cities by 30-50%. This project is a preliminary investigation of high-albedo materials for buildings and other urban surfaces such as rooftops, walls, pavements, and parking lots. Effects of albedo changes on building cooling energy consumption will also be measured.

TECHNICAL SCOPE OF WORK

Task 1: Information Gathering/Literature Review

Compile and review published material and manufacturers' information on high-albedo surfaces and materials; compile and analyze existing research results from the U.S. and other countries. Compile available databases from manufacturers on high-albedo materials, costs, durability, maintenance, and technical problems. Contact other research laboratories, institutes, and manufacturers to discuss construction practices related to high-albedo products. Collaborate with lighting experts to further understand the implementation possibilities and effectiveness of such colors/textures.

Task 2: Measurements

Select four different surface types, change their albedos, and measure changes in albedo over time; surfaces will include roofs, walls, streets, and pavings. Measurements will be taken after 6 months and one year. (Measurements to be taken after two years if project is renewed.) Make measurements of environmental conditions such as air and surface temperature, wind speed, etc., to allow calibration of simulations in Task 3.

Task 3: Cooling Energy Simulations

Simulate the direct effects of albedo change on building cooling energy consumption using DOE-2. Determine energy savings in different climates from albedo changes of building roofs and walls.

DELIVERABLES

1. Quarterly reports as noted in Attachment 2.
2. Draft report summarizing results of the literature survey, albedo measurements, and cooling energy simulations. Report will also re-evaluate the tasks and make recommendations for future directions of the project. **Due date: 31 August 1991.**
3. Final report. **Due date: 30 September 1991.**

PERIOD OF PERFORMANCE

22 August 1990 through 30 September 1991

Estimated Proposal Budget

TITLE: High Albedo Building Materials for Heat Island Mitigation

A. SALARIES AND WAGES*	Name	Pay Cat.	FTE	Requested Budget
Senior Personnel				
Principal Investigators	H. Akbari	9452	0.02	1,000
Others	Y. Joe Huang	9453	0.04	2,000
	Haider Taha	9436	0.11	3,360
	Phil Martien	9437	0.40	11,483
	Adm. Svcs.	9455	0.07	2,176
	Total			
	Salaries			20,019
B. FRINGE BENEFITS @ 24.3 x 16,659				----- 4,049
B. FRINGE BENEFITS @ 14.4 x 3,360				484
C. TOTAL, SALARIES AND FRINGE				24,552
D. PERMANENT EQUIPMENT				----- 0
E. EXPENDABLE EQUIPMENT AND SUPPLIES				
F. TRAVEL				----- 1,200
	Domestic			
	Foreign			----- 1,000
G. PUBLICATION COSTS				----- 0
H. COMPUTER COSTS (if charged as direct cost)				1,000
I. OTHER DIRECT COSTS				2,000
	Shop Burden			
	Consultants, Other		0	
	Scientific Burden		0	
	(@ 10.2% of lines C to I - D)	3,035		3,035
J. TOTAL DIRECT COSTS (lines C to I)				----- 32,787
K. INDIRECT COSTS AT **	52.5% of Line J - Line D			17,213
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ATTACHMENT 2
PROJECT MANAGEMENT AND REPORTING REQUIREMENTS
to
AGREEMENT No. EXP-90-10
between
CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY
and
LAWRENCE BERKELEY LABORATORY

PROJECT MANAGEMENT

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Max Sherman
LBL, Mail Stop 90-3074
486-4022

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(Suggested Format for CIEE Quarterly Reports for Exploratory Research)

CIEE QUARTERLY PROGRESS REPORT

October through December 1990

Project Title: Energy Efficiency of Widgets
Principal Investigator: L. Green, (209) 333-3333
University of the West
2305 College Way
Lakeside, California 93662
Project Period: 1 July 1990 through 30 June 1991

Project Status:

Major activities and accomplishments during this quarter.

Major Problems or Changes:

If none, state so. Request approval for any delays or significant changes.

Fiscal Status:

Total Funding:
Costs To Date:
Balance Remaining:

Discussion: Include if needed; address any major budget problems.

AMENDMENT No. 1 to AGREEMENT Nos.

B-90-01A
B-90-02A
B-90-03B
EXP-90-05
EXP-90-06
EXP-90-07
EXP-90-08
EXP-90-09
EXP-90-10
EXP-90-11
DD-90-04
DD-90-05

between

CALIFORNIA INSTITUTE FOR ENERGY EFFICIENCY

and

LAWRENCE BERKELEY LABORATORY

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All other terms and conditions remain the same.

In witness whereof the parties hereto have executed this amendment to the Agreement.

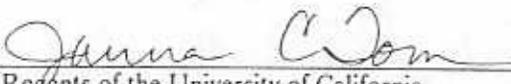


Director, California Institute for Energy Efficiency

12/17/90

Date

ACCEPTED AND AGREED TO:



for The Regents of the University of California
Lawrence Berkeley Laboratory

12/17/90

Date