MASTER

PROJECT STATUS REPORT

COORDINATION/MANAGEMENT TASKS FOR THE
IEA AND CCMS SOLAR HEATING AND COOLING PROGRAMS

CONTRACT NUMBER DE-AC02-79CS30108.A001

PERIOD COVERING DECEMBER 15, 1979 - MAY 15, 1980

TPI, Inc.
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STATUS OF TASKS

Task 1. COORDINATION/MANAGEMENT TASKS

Subtask 1.4 Coordination/Management Support for the CCMS Follow-Up

Activities

An International Passive Cooling Experts Workshop, co-sponsored by DOE and the CCMS Passive Applications Group, was held in Miami, Florida, April 28 - May 2, 1980. The Project Manager, Sheila Blum, assisted the organizer of the meeting (Professor A. Bowen - University of Miami) with several aspects of the meeting. Mr. W. Kennish of TPI attended the workshop as an observer. The summary of that meeting was submitted May 9, 1980 to the DOE Contract Officer.

Ms. Blum met, on May 6, 1980, with French solar energy officials at CNRS in Paris to discuss (1) the CCMS-CNRS International Passive Symposium planned for December 1980 in Nice and (2) the search for a new sponsor for the CCMS Passive Solar Applications Group. Details of the meeting are provided in the trip report submitted June 19, 1980.

A planned meeting with Bertrand Chatel at the United Nations had to be cancelled because of DOE travel restrictions. The trip, whose purpose was to discuss the possibility of United Nations sponsorship of an international passive working group, will probably be re-scheduled.

The First Follow-Up Report of the CCMS Solar Energy Pilot Study, prepared by TPI, was distributed in January to CCMS Participants

NATO/CCMS Headquarters, and DOE personnel. A copy of the document accompanies this report.

Subtask 1.5 Coordination and Management Support for the IEA Solar Heating and Cooling Program

The R&D project summary forms for IEA Task II completed by the DOE solar heating and cooling R&D contractors were compiled by TPI, standardized as necessary, and sent to the Operating Agent January 25. In addition, the contractor coordinated the preparation of write-ups on component technical problems and solutions being pursued. This material was sent to the Operating Agent March 17.

The contractor participated in the preparation of an assessment questionnaire for the IEA Solar program, and in the modification of the first version, after the Executive Committee meeting.

Ms. Blum met, at the request of the Program Manager, with Dr. A. Muñoz Torralbo on January 31 in Washington, D.C. to discuss the issue of Spanish participation in the IEA Solar Program and improvement of the extent of their involvement. The details of the meeting were transmitted to Dr. Morse, Chairman of the IEA Solar Executive Committee, for his information and action.

Two new annexes (VI and VII) to the Implementing Agreement have been under consideration, and Annex I is being revised. The contractor reviewed these and coordinated the review of other U.S. experts from DOE and the private sector before DOE indicated approval.

Ms. Blum attended a meeting on Government/Industry interface for IEA Task III on March 13 at SEIA Headquarters. The purpose was to discuss the solar industry's concerns vis a vis IEA work they considered to be international collector standards development. Utilizing input from SEIA and NBS, Ms. Blum drafted a paper on the U.S. position on standards development and an increased industry involvement in the Task III work.

Subtask 1.6 Coordination, Participation, and Follow-Up for the IEA Executive Committee Meeting, Stresa, Italy

The project manager drafted the agenda for the seventh IEA Executive Committee Meeting on April 29-30 in Stresa, Italy and was responsible for other organizational details. She is handling a number of follow-up actions and will also prepare and distribute the minutes during the next reporting period. A visit was made on April 28 to the solar facilities of the European Commission Joint Research Center at Ispra, Italy. (See trip report submitted previously for report of Stresa and Ispra meetings.)

Subtask 1.7 IEA Flyer

The IEA Participants decided that a flyer describing the collaborative activities would be desirable. TPI drafted such a flyer and circulated it for review to the Executive Committee members. The flyer was revised and layout and design work done. Printing was completed in early May, at which time a quantity of flyers was sent to Committee members and Operating Agents. A copy of this flyer is enclosed. This subtask is now complete.

Subtask 1.8 Final Project Report

This subtask has been postponed in view of the extension of the contract until 30 September 1980.

Subtask 1.9 Framework for International Solar Strategy

The contract was modified to include, effective October 1, 1979, a task covering the preparation of a document for a framework for international solar program integration. This entailed a major effort on the part of TPI and its subcontractors, Delphi Research Associates and the Institute of Public Administration. The draft document, "DOE International Solar Policy and Strategy Framework," prepared under this subtask is enclosed. This subtask is now completed.

Task 2. TECHNICAL SUPPORT

Subtask 2.2 Validation Methodology Implementation

Some feedback was received from the IEA Participants on the problems associated with the Validation Format for the NBS Domestic Hot Water Study. NBS was contacted by the Contractor and information obtained to assist other Participants in performing their simulations. There still is not adequate response to allow the formulation of a general validation format. The preparation of the format has therefore been postponed until the next reporting period.

Specific information responding to the Participants' questions on the NBS Study was sent to the Operating Agent, Ove Jorgensen. Due to time constraints it is doubtful whether additional information can be made available to participants before the simulation results are due.

No further work is expected on this subtask until the general format is prepared.

Subtask 2.3 IEA Task I Meeting (Lausanne)

Prior to the Task I meeting (February 2, 29, 1980), the four NBS Domestic Hot Water solar systems were simulated by the Contractor. When comparing TPI results to LASL results, it was found that considerable differences occurred between measured (not simulated) energy collected which could not be explained. Because of this significant and fundamental problem TPI did

not prepare a formal document for distribution at the Lausanne meeting.

When the results were presented at the meeting by various Participants, it was apparent that the LASL results for measured collected energy were different from all the other simulations. Jim Hedstrom of LASL then mentioned that he had modified the data to account for a problem with the inlet temperature during draw. This explained the differences.

A report for the Lausanne trip is attached to this status report. The trip report describes in more detail the topics of discussion during the meeting.

Following the meeting, additional information was obtained from NBS and sent to Dr. Jorgensen (Subtask 2.2). The simulations were also completed, the results put in the format form, and the document sent to Dr. Jorgensen. The simulation results are described in the attached document, "IEA Validation Study Using NBS Domestic Hot Water Systems."

During the time period following May 15 and prior to the next meeting in San Francisco, TPI will probably be called upon by Dr. Jorgensen to help synthesize the Participants' results into an IEA Task I validation document.

Subtask 2.4 Task II Meeting (Lausanne)

Dr. Kennish attended the Task II meeting in Lausanne at the request of Dr. Morse of DOE who was unable to be present. Coordination meetings were held with Dr. Morse prior to the

trip. However, little preparation was required by Dr. Kennish. A discussion of the results of the meeting is included in the attached trip report.

No further work is anticipated in this subtask.

COST AND MANAGEMENT REPORTS

COORDINATION/MANAGEMENT TASKS FOR THE
IEA AND CCMS SOLAR HEATING AND COOLING PROGRAMS

CONTRACT NUMBER DE-AC02-79CS30108.A001

PERIOD COVERING JANUARY 31, 1980 - MAY 15, 1980

TPI, Inc.
ENERGY, SYSTEMS & ANALYSIS
5010 SUNNYSIDE AVENUE
BELTSVILLE, MARYLAND
20705

MILESTONE SCHEDULE AND STATUS REPORT

1. Contract Identification		2. Reporting Period		3. Contract Number																		
COORDINATION AND MANAGEMENT TASKS FOR IEA/CCMS SOLAR HEATING AND COOLING PROGRAMS		Jan. 31, 1980 through May 15, 1980		DE-AC02-79CS30108.A001																		
4. Contractor (name, address)				5. Contract Start Date																		
TPI, Inc. 5010 Sunnyside Avenue, Suite 301 Beltsville, Maryland 20705				March 15, 1979																		
				6. Contract Completion Date																		
				May 15, 1980																		
7. Identification Number	8. Reporting Category (e.g., contract line item or work breakdown structure element)	9. Fiscal Years and Months														10. Percent Complete						
		1979							1980													
		M	A	M	J	J	A	S	O	N	D	J	F	M	A	M			a) Planned	b) Actual		
1.1	ISES Meeting, Atlanta																					
1.2	IEA Tokyo Meeting																					
1.3	IEA Copenhagen Meeting																					
1.4	CCMS Follow-up Activity																					
1.5	IEA General Support																					
1.6	IEA Stresa Meeting																					
1.7	IEA Flier																					
1.8	Final Project Report																					
2.1	Dev. Validation Methodology																					
2.2	Imp. Validation Methodology																					
2.3	Task I Lausanne Meeting																					
2.4	Task II Lausanne Meeting																					
1.9	Framework for International Solar Strategy																					
11. Remarks																						
12. Signature of Contractor's Project Manager and Date											13. Signature of Government Technical Representative and Date											
Sheila B. Blum 6/27/80																						

CONTRACT MANAGEMENT SUMMARY REPORT

FORM APPROVED
OMB NO. 38R-0190

1. Contract Identification COORDINATION/MANAGEMENT TASKS FOR TEA/LEAS SOLAR HEATING AND COOLING PROGRAMS		2. Reporting Period 1/31/80 through 5/15/80		3. Contract Number DE-AC02-79CS30108. A001	
4. Contractor (Name and Address) TPI, Inc. 5010 Sunnyside Ave., Suite 301 Beltsville, MD 20705				5. Contract Start Date March 15, 1979	
				6. Contract Completion Date May 15, 1980	
7. Months FY80 O N D J F M A M		8. FY 80			

9. Cost Status										g. Cost Plan Date 6 Feb 80	
a.										h. Planned Costs Prior FYs 49132	
b. B&R Numbers										i. Actual Costs Prior FYs 51429	
										j. Total Estimated Costs for Contract 131658	
										k. Total Contract Value 131658	
										l. Unfilled Orders Outstanding -	
Accrued Costs										m. Estimate for Subsequent Reporting Period	
c. Planned 18.5 14.0 13.3 8.1 11.9 4.6 7.8 4.3											
d. Actual 11.9 10.3 13.9 9.7 8.1 6.0 12.9 6.4											
e. Variance 6.6 3.7 (-.4) (1.6) 3.8 (1.4) (5.1) (2.1)											
f. Cum. Variance 4.3 8.0 7.6 6.0 9.8 8.4 3.3 1.2											

10. Manpower Status (Direct Labor)										e. Manpower Plan Date 5 Feb 80	
a.										f. Planned Manpower Prior FYs 1619	
										g. Actual Manpower Prior FYs 1894	
										h. Total Estimated Manpower for Contract 4322	
										i. Total Contract Manpower 3824	
Manpower											
b. Planned 431 413 355 230 226 180 210 160											
c. Actual 408 474 325 396 389 192 282 159											
d. Variance 23 (61) 30 (166) (163) (12) (72) 1											

11. Major Milestone Status FY80 O N D J F M A M										
a.	1.4
b.	1.5
c.	1.6
d.	1.7
e.	1.8	(contract being extended)								
f.	1.9
g.	2.2
h.	2.3
i.	2.4

12. Remarks

13. Signature of Contractor's Project Manager and Date

Sheila Blum 6/27/80

14. Signature of Government Technical Representative and Date

May 15, 1980

MILESTONE LOGDE-AC02-79CS30108.A001

Contract No.

SUBTASK NO.	DESCRIPTION	PLANNED COMPLETION DATE	ACTUAL COMPLETION DATE	COMMENTS
1.1	Participate in ISES Int'l. Session	30 May 79	30 May 79	
1.2	IEA Exec. Mtg. Tokyo, Japan	21 May 79	21 May 79	
1.3	IEA Exec. Mtg. Copenhagen, DK	22 Oct 79	22 Oct 79	
1.4	CCMS Passive Mtg. Israel	17 Oct 79	17 Oct 79	
1.4	CCMS Follow-Up Report	15 Oct 79	15 Dec 79	Unavoidable delay
1.4	CCMS Passive Cool- ing Workshop	2 May 80	2 May 80	
1.5	Coordinate Mtg. of US/IEA Part.	8 May 79	8 May 79	
1.5	IEA Component R&D Survey	30 Sep 79	15 Jan 80	Delayed by project leader (Japan)
1.6	IEA Exec. Mtg. Stresa, Italy	29 Apr 80	29 Apr 80	
1.7	IEA Flier	15 Mar 80	9 May 80	
1.8	Final Project Report	15 May 79		Contract being extended until 9/30/80
1.9	Int'l. Strategy Framework	12 Nov 79	12 Nov 79	
2.1	Present. at IEA Meeting, Tokyo	15 May 79	15 May 79	
2.1	Draft of Valid. Format-NBS Study	1 Sep 79	7 Sep 79	
2.2	Draft of IEA Val. Format, General	15 Dec 79		Postponed until more feedback is obtained
2.2	IEA Validation Study (NBS-DHW)	28 Feb 80	12 May 80	Simulations had to be redone
2.3	Pres. at Lausanne Mtg. Task I	28 Feb 80	28 Feb 80	
2.4	Pres. at Lausanne Mtg. Task II	4 Mar 80	4 Mar 80	