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SCSE SR-3

August 18, 1980

MASTER

STATUS REPORT
OF SOLAR STANDARDS COORDINATED BY THE
STEERING COMMITTEE ON SOLAR ENERGY
STANDARDS DEVELOPMENT

CONTENTS

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STATUS SUMMARY

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Note: Recipients of the Status Report are urged to read the Introductory Material in order to become familiar with the organization of and entry into the standards lists.

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STATUS SUMMARY, SOLAR STANDARDS
(as of 8-18-80, SR-3)

<u>SDO</u>	<u>Std's in dev't</u>	<u>Std's approved</u>	<u>Total</u>
AAMA	0	0	0
AIA	0	0	0
ARI	1	2	3
ASHRAE	6	3	9
ASME	4	0	4
ASTM	46	6	52
CABO	1	0	1
NEMA	0	0	0
SEIA	1	0	1
SEREF	0	0	0
UL	1	0	1
<hr/>			
TOTALS	60	11	71

STATUS REPORT OF STANDARDS UNDER THE SCSE

A. INTRODUCTORY MATERIAL

1. Purpose of the Status Report

This document is a management and control tool as well as repository of information designed to accomplish the following:

- a. Provide a complete list of approved standards, standards under development, and standards under revision. This list answers the question: "What is the total standards load being coordinated by the Steering Committee?"
- b. Provide, for each of the standards writing organizations associated with the Steering Committee, a list of standards for which that organization is responsible. This way of breaking down the total list answers the question: "What is the responsibility of each standards-writing organization in developing solar standards?"
- c. Provide the latest information on the status of each standard listed. This information answers the question: "What is happening with standard 'X'?". Thus the basis for timely action by the Steering Committee is available.
- d. Provide a permanent record of the history of a standard as it is developed, approved, maintained, and/or deleted over the course of time. The accumulation of Status Reports answers the question: "What has happened to standard 'X'?"

2. Update of Information

Each issue of the Status Report provides information, available to ANSI staff as of the time of publication, on the current status and/or latest action on each standard. Staff will be sending out a request for update information prior to each issue, to all of the standards writing organizations. Therefore, the timeliness, accuracy, and usefulness of the report will depend to a large extent on the quality and timeliness of the information supplied by the solar standards writing organizations.

We look forward to a mutually supportive and cooperative effort. Additions or corrections to any entry are welcomed and may be directed in writing or by phone to:

Mrs. Ruth Zelman
American National Standards Institute
1430 Broadway
New York, N.Y. 10018
212-354-3485

Note:

A specific issue of the Report does not provide a history of a standards project, only a statement of its status as of the time of publication. More detailed information about any specific project may be obtained by calling ANSI staff. It is of advantage to have available a copy of the ANSI Catalog to be used in conjunction with the Report. The Catalog contains a list of approved and published standards as well as instructions for ordering. A copy of the Catalog may be obtained, by communicating with Mrs. Zelman, same address and phone as above.

3. How the Status Report is Organized

3.1 The Index

The index is arranged alphanumerically with the letters of the SDO followed by an identifying number.

Examples: ASHRAE 93-1977
 P/ASHRAE 94.2

The first example indicates an ANSI approved standard, published in 1977. The P/ in the second example indicates a "proposed" standard or a standard "project" i.e. a standard under development and not yet approved by ANSI. Standards in draft form are not available from ANSI. For information on drafts communicate with the SDO. Published standards may be purchased from ANSI. Consult the ANSI catalog or call the ANSI Sales Department or ANSI solar staff.

SOLAR STANDARDS DEVELOPMENT ORGANIZATIONS

<u>Designation</u>	<u>Full Name</u>
AAMA	Architectural Aluminum Manufacturers Association
AIA	American Institute of Architects
ARI	Air-Conditioning and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
CABO	Council of American Building Officials
NEMA	National Electrical Manufacturers Association
SEREF	Solar Energy Research and Education Foundation
UL	Underwriters Laboratories

3.2 The Lists of Standards

Approved standards and standards projects are entered in a number of lists corresponding to the secretariat (or other standards developing body) responsible for developing and maintaining the standards. The lists are arranged alphabetically by secretariat initials. The full title corresponding to the initials is given only at the beginning of each list. Full titles are also given above in section 3.1.

3.3 Typical Entry

A typical entry in a standards list is given below and its parts labeled:

1. A proposed standard with numerical designation
2. Title of standard, in capitals
3. Date of latest known action or information on this standard
4. Nature of latest information or action

4. How to Obtain Information on a Standard

There are a number of ways to enter the standards lists. These are, in order of ease and rapidity:

- a. Via the alphanumeric designation. The usual alphanumeric will consist of the SDO initials followed by a number. Go directly to the SDO list arranged alphabetically by SDO initials (see section 3.1.) The numerical designations are arranged in order by value of the number. Published standards are easily found since they have no P/. Draft standards stand out because of the P/symbol.
- b. Via the name of the secretariat or SDO. If only the name is known, all the standards under the SDO can be quickly perused to find the one of interest.

5. Availability of the Status Report

The Status Report of Solar Standards coordinated by the Steering Committee on Solar Energy Standards Development is available to members of the Steering Committee. Any comments or questions should be directed to the ANSI staff.

6. ANSI Solar Staff

Program Manager:
Assistant Program Administrator:
Secretary:

Dr. Irving G. Young
James C. Scherer
Ruth Zelman

American National Standards Institute
1430 Broadway
New York, N.Y. 10018
212-354-3485

B. INDEX

AAMA

AIA

ARI

ARI 910-80

ARI 920-80

P/ARI 930

ASHRAE

74-1973

93-1977

94.1-1977

P/94.2

P/95

P/96

P/107

P/108

P/109

ASME

P/SES 1

P/SES 2

P/SES 3

P/SES 4

ASTM

D3667-78

D3771-79

D3832-79

E424-71

E683-79

E712-80

For P/stds see note under ASTM: 46 proposed standards
are listed.

CABO

P/MODEL DOC.

NEMA

SEIA

SEIA 1-79

SEREF

UL

P/UL 1279

C. LISTS OF STANDARDS

The lists of standards which follow are arranged alphabetically by acronym of the standards developing organization (SDO). The first page for each SDO gives the complete name, succeeding pages, the acronym only.

For each SDO, a list in alphanumeric order is given, of approved standards and standards in development, except for ASTM. For ASTM, approved standards are listed first, followed by those in development, since the latter do not have an alphanumeric designation; see the ASTM list below for further explanation.

Following each SDO standards list is a table taken from NBSIR 78-1143 A, June 1978 ("Plan for the Development and Implementation of Standards for Solar Heating and Cooling Application") which indicates how the SDO is doing with respect to the plan. Finally, at the end of all the lists are two more tables. The first refers each SDO to the tables in the plan; the second refers all the SDO's to the conceptual scheme of the plan via an abbreviated version of the tables.

AIA

AMERICAN INSTITUTE OF ARCHITECTS

AIR-CONDITIONING AND REFRIGERATION INSTITUTE

ARI	910-80	RATING STANDARD FOR SOLAR COLLECTORS Issued
ARI	920-80	SOLAR DOMESTIC HOT WATER SYSTEMS Being held for approval of proposed ASHRAE standard 95 which it references.
P/ARI	930 8-80	APPLICATION OF SOLAR COLLECTORS To be reviewed further by subcommittee, 8/5/80

ASHRAE

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR-CONDITIONING
ENGINEERS

- 74-1973 METHODS OF MEASURING SOLAR-OPTICAL PROPERTIES OF MATERIALS
Scheduled for Revision. Chairman has been appointed. Committee to be formed.
- 93-1977 METHODS OF TESTING TO DETERMINE THE THERMAL PERFORMANCE OF SOLAR COLLECTORS
8-80 Chairman has been appointed. Committee activated. First meeting of committee was June, 1980 at Annual Convention in Denver, CO.
- 94.1-1977 METHODS OF TESTING THERMAL STORAGE DEVICES BASED ON THERMAL PERFORMANCE
Scheduled for rewrite. Chairman has been selected but not yet approved.
- P/94.2 METHOD OF TESTING THERMAL STORAGE DEVICES WHICH ARE ELECTRICALLY CHARGED AND THERMALLY DISCHARGED
8-80 Concurrent ASHRAE/ANSI Public Review complete. Comments have been forwarded to committee.
- P/95 METHOD OF TESTING TO DETERMINE THERMAL PERFORMANCE OF PACKAGED RESIDENTIAL SOLAR WATER HEATERS
8-80 Second draft is out for concurrent ASHRAE/ANSI. Review closing date 9/30/80.
- P/96 METHOD OF TESTING TO DETERMINE THE THERMAL PERFORMANCE OF UNGLAZED FLAT PLATE LIQUID TYPE SOLAR COLLECTORS
8-80 Approved for publication. Is at the printers.
- P/107 STANDARD FOR ESTIMATING THE THERMAL PERFORMANCE AND SOLAR FRACTION EXPECTED FROM SYSTEMS WHICH EMPLOY SOLAR COLLECTORS OR ARRAYS FOR AT LEAST A PORTION OF THE ENERGY REQUIRED TO ENERGIZE THE COOLING SYSTEM
8-80 New Standards Committee. Chairman approved, committee formed, first meeting of committee was June, 1980 at Annual Convention in Denver, CO.
- P/108 METHOD OF TESTING TO DETERMINE THE THERMAL PERFORMANCE OF COMBINED COLLECTOR/STORAGE DEVICES
8-80 Selecting chairman for committee.
- P/109 METHOD OF TESTING TO DETERMINE THE THERMAL PERFORMANCE OF COLLECTORS CONTAINING A BOILING LIQUID
8-80 Chairman has been selected and in process of selecting committee.

ASHRAE (NBSIR 78-1143A, June 1978)

Table A1 Methods of Test, Functional

A. Thermal performance

		<u>Planned Completion Date</u>	<u>Status</u>	<u>Approved</u>
1.	<u>Systems</u>			
	a. Active			
	1) DHW and SHW	11/78	see P/95	
	2) Heating	10/79	see P/96	
	3) Swimming Pool	8/78	see P/96	
2.	<u>Subsystems</u>			
	a. Thermal Storage Devices			see 94.1-77
3.	<u>Components</u>			
	a. Flat plate collectors			see 93-77

ASME

AMERICAN SOCIETY OF MECHANICAL ENGINEERS
(ASME Solar Energy Standards Committee)

P/SES 1	SOLAR HEAT EXCHANGERS FOR LIQUID SYSTEMS FOR
HEATING DOMESTIC WATER
7/80	Third Draft (6/80) being letter balloted by
Subcommittee
P/SES 2	INTERIM STANDARD FOR MID-TEMPERATURE SOLAR
COLLECTORS
7/80	Third Draft (6/80) being letter balloted by
Subcommittee
P/SES 3	SOLAR CODE
7/80	Second Draft (3/80) not ready for balloting
(in writing group)
P/SES 4	VENTING THERMAL ENERGY STORAGE TANKS USED FOR
SOLAR HEATING AND COOLING
7/80	Second Draft (3/80) not ready for reballoting
(in writing group).

ASTM

AMERICAN SOCIETY FOR TESTING AND MATERIALS

- Note: ASTM standards are not given a designation until approved for the first time. Standards in development for the first time will be identified by P/E 44.XX, where XX is the sub-committee. Approved standards will be designated in the usual way.
- D3667-78 SPECIFICATION FOR RUBBER SEALS USED IN FLAT PLATE SOLAR COLLECTORS
- D3771-79 SPECIFICATION FOR RUBBER SEALS USED IN CONCENTRATING SOLAR COLLECTORS
- D3832-79 SPECIFICATION FOR RUBBER SEALS CONTACTING LIQUIDS IN SOLAR ENERGY SYSTEMS
- E424-71 STANDARD TEST METHOD FOR SOLAR TRANSMITTANCE (TERRESTRIAL) OF SHEET MATERIALS USING SUNLIGHT
6-80 E44.04 6/18/80
- E683-79 STANDARD PRACTICE FOR SIZING OF ACTIVE SOLAR DHW SYSTEMS FOR ONE AND TWO FAMILY DWELLINGS
6-80 E44 6/15/80
- E712 GUIDE FOR LABORATORY SCREENING OF METALLIC CONTAINMENT MATERIALS FOR USE WITH LIQUIDS IN SOLAR HEATING AND COOLING SYSTEMS
2-80 Submitted to ANSI public review and comment, with comment period closing 1-2-80
- P/E44.01 STANDARD DEFINITIONS OF TERMS RELATING TO SOLAR ENERGY CONVERSION
6-80 Society ballot 7/20/80
- P/E44.02 DIRECT NORMAL SOLAR SPECTRAL IRRADIANCE AT AIR MASS 1.5
6-80 E44.02 ballot 7/20/80
- P/E44.02 GLOBAL SOLAR SPECTRAL IRRADIANCE AT AIR MASS 1.5
6-80 E44.02 ballot 7/20/80
- P/E44.02 DEVELOPMENT OF METHODS TO MEASURE OPTICAL PROPERTIES OF MATERIALS
12-79 Presently in WG. Expect draft 1/80, main committee ballot 9/80

ASTM cont'd

- P/E44.02 SOLAR SPECTRAL IRRADIANCE AT SEVERAL AIR MASSES
2-80 Presently in WG. Expect draft 5/80, main committee
ballot 9/80
- P/E44.02 CALIBRATION OF SECONDARY REFERENCE PYRHELIOMETERS AND
PYRHELIOMETERS FOR FIELD USE
6-80 E44.02 ballot 6/18/80
- P/E44.02 CALIBRATION OF REFERENCE PYRANOMETERS BY THE SHADING
METHOD
6-80 E44.02 ballot 7/20/80
- P/E44.02 TRANSFER OF CALIBRATION FROM REFERENCE TO FIELD
PYRANOMETERS
6-80 E44.02 ballot 6/18/80
- P/E44.02 CALIBRATION OF PYRANOMETERS FOR COSINE, TILT, AND
TEMPERATURE COMPENSATION
2-80 In WG: SC ballot 9/80
- P/E44.02 TRANSFER OF CALIBRATION FROM ABSOLUTE CAVITY RADIOMETERS
TO PYRHELIOMETERS AND PYRANOMETERS
2-80 Presently in WG. WG ballot 2/80, subcommittee ballot 9/80
- P/E44.04 EVALUATING SOLAR COLLECTOR COVERS FOR FLAT PLATE
COLLECTORS
6-80 E44 Society ballot, 6/15/80
- P/E44.04 EVALUATING SOLAR ABSORPTIVE MATERIALS FOR THERMAL
APPLICATIONS
12-79 Concurrent E44, E44.04 ballot fall 1979
- P/E44.04 EVALUATING ABSORPTIVE SOLAR RECEIVER MATERIALS EXPOSED
IN CONDITIONS SIMULATING STAGNATION IN COLLECTORS WITH
COVER PLATE(s).
6-80 E44, E44.04 ballot 6/18/80
- P/E44.04 DETERMINING RESISTANCE OF SOLAR COLLECTOR COVERS TO HAIL
BY IMPACT WITH PROPELLED ICE BALLS
6-80 E44, E44.04 ballot 6/18/80
- P/E44.04 EXPOSURE OF SOLAR COLLECTOR COVER MATERIALS TO MOIST HEAT
12-79 E44.04 ballot 8/78
- P/E44.04 TESTING SOLAR COLLECTOR COVER MATERIALS BY THERMAL SHOCK
12-79 E44.04 ballot 8/78
- P/E44.04 SIMULATED SERVICE TESTING FOR CORROSION OF METALLIC CON-
TAINMENT MATERIALS FOR USE WITH HEAT TRANSFER FLUIDS
IN SOLAR HEATING AND COOLING SYSTEMS
12-79 E44 ballot, fall 1979

ASTM cont'd

- P/E44.04 EXPOSURE OF COVER MATERIALS FOR SOLAR COLLECTORS TO
NATURAL WEATHERING UNDER CONDITIONS SIMULATING OPER-
ATIONAL MODE
6-80 E44.04 ballot, 6/18/80
- P/E44.04 EVALUATING INSULATION MATERIALS FOR USE IN SOLAR
COLLECTORS
6-80 E44.04 ballot, 6/18/80
- P/E44.04 EFFECT OF OUTGASSING PRODUCTS ON SOLAR COLLECTOR
COVER PLATE TRANSMITTANCE
12-79 In writing group
- P/E44.04 PERFORMING ACCELERATED OUTDOOR WEATHERING USING
CONCENTRATED NATURAL SUNLIGHT
6-80 E44.04 ballot 6/18/80
- P/E44.04 OPERATING ACCELERATED OUTDOOR WEATHERING MACHINES
EMPLOYING NATURAL SUNLIGHT AS SOURCE
12-79 E44.04 ballot, 8/78
- P/E44.04 EVALUATING SPECULAR REFLECTORS
12-79 In writing group
- P/E44.04 LABORATORY SCREENING OF PLASTIC CONTAINMENT MATERIALS
FOR SOLAR HEATING AND COOLING SYSTEMS
6-80 E44.04 ballot, 6/18/80
- P/E44.04 EVALUATING HEAT TRANSFER FLUIDS
6-80 E44.04 ballot 6/18/80
- P/E44.05 NON-OPERATIONAL EXPOSURE AND INSPECTION OF A SOLAR
COLLECTOR
6-80 E44.05 ballot 6/18/80
- P/E44.05 STANDARD PRACTICE FOR EXPOSURE OF A SOLAR COLLECTOR TO
A NATURAL ENVIRONMENT IN A NON-OPERATIONAL MODE
12-79 E44.04 and E44, ballot 1/80; ASTM ballot 5/80
- P/E44.05 DETERMINING ALL DAY THERMAL PERFORMANCE OF SOLAR
COLLECTORS
6-80 E44.05 ballot, 6/18/80
- P/E44.06 INSTALLATION AND SERVICE OF SOLAR DHW SYSTEMS
6-80 E44.06 ballot, 7/20/80
- P/E44.06 DETERMINING SYSTEM SIZING OF SOLAR SPACE AND DHW SYSTEMS
12-79 E44.04 and E44 ballot, 11/79

ASTM cont'd

- P/E44.06 IN-PLACE PERFORMANCE MEASUREMENTS ON SPACE AND DHW
SYSTEMS
12-79 E44.04 ballot, 1/80
- P/E44.06 DETERMINING RELIABILITY AND MAINTAINABILITY OF SPACE
AND DHW SYSTEMS
12-79 E44.04 ballot, 1/80
- P/E44.07 PROPOSED TEST METHODS FOR DETERMINING THERMAL PER-
E44.08 FORMANCE OF CONCENTRATING SOLAR COLLECTORS
12-79 Jurisdiction to be decided; may fall under ASHRAE 93-77
- P/E44.09 METHODS FOR TESTING NON-CONCENTRATOR TERRESTRIAL PHOTO-
VOLTAIC DEVICES USING REFERENCE CELLS
12-79-4th draft under review
- P/E44.09 SPECIFICATION OF SOLAR SIMULATORS FOR TERRESTRIAL
PHOTOVOLTAIC TESTING
12-79 3rd draft under review
- P/E44.09 METHOD FOR CALIBRATION OF TERRESTRIAL PHOTOVOLTAIC
REFERENCE CELLS
12-79 3rd draft under review
- P/E44.09 TEST METHOD FOR CONCENTRATING PHOTOVOLTAIC DEVICES
12-79 In working group
- P/E44.09 SPECIFICATION FOR STANDARD TERRESTRIAL PHOTOVOLTAIC
REFERENCE CELLS
12-79 2nd draft under review
- P/E44.12 SPECIFICATION FOR ALCOHOLS FOR USE AS A FUEL IN INTERNAL
COMBUSTION ENGINES
12-79 Proposed standard
- P/E44.12 STANDARD TEST METHODS FOR THE ANALYSIS OF WOOD AND
WOOD PRODUCTS FOR USE AS A FUEL
12-79 Proposed standard
- P/E44.12 SPECIFICATION FOR WOOD AND WOOD PRODUCTS USED AS A FUEL
12-79 Proposed standard

ASTM cont'd

- P/E44.13 PRACTICE FOR ESTIMATING THE COST OF ENERGY FROM
ADVANCED SOLAR ENERGY SYSTEMS
6-80 E44.13 ballot 6/23/80
- P/E44.14 MOVABLE INSULATION
12-79 Draft
- P/E44.14 ORIENTATION AND SITE SELECTION
12-79 Draft
- P/E44.14 PERFORMANCE ESTIMATION AND ECONOMIC SIZING OF PASSIVE
SOLAR THERMAL STORAGE WALL SYSTEMS
12-79 Draft
- P/E44.14 INSTALLATION OF SITE-BUILT AIR COLLECTOR SYSTEMS
12-79 Draft

ASTM (NBSIR, 78-1143A, June 1978)

Tables A2, A3 Methods of Test, I Functional

A. <u>Thermal Performance</u>	Planned Completion		
4. <u>Functional Materials</u>	<u>Date</u>	<u>Status</u>	<u>Approved</u>
a. Collector Insulation	4/79	see P/E44.04	
B. <u>Optical Performance</u>			
1. <u>Functional Materials</u>			
a. Cover Plates	1/80	see P/E44.04 (3)	
1) Cover Plate Windows	4/81		
b. Absorber Coatings	10/79	see P/E44.04 (2)	

Tables A3, A4 Methods of Test, II Durability and Reliability

A. <u>Systems (Active, Liquid)</u>			
1. <u>Materials Interactions</u>	6/80	see P/E44.04 (3)	
B. <u>Components</u>			
1. Collector Reliability	6/79	see P/E44.06	
2. Collector Durability	6/80		
C. <u>Functional Materials</u>			
1. Cover Plates	see above		
2. Absorber Coatings (outdoor)	3/79		
(general)	12/79		
3. Absorber Plate Materials			
Screening Metal/fluid	10/79	see P/E44.04 (3)	
pairs			
Metal Corrosion/system	3/81	see P/E44.04	
testing			
Non-metallic containers	3/81		
5. Collector Insulation	9/81	see P/E44.04	
11. Outgassing	6/80	see P/E44.04	

ASTM (cont'd)

Tables B1, B2 Recommended Practices I Design and Selection

A. <u>Systems Design</u>	Planned Completion	<u>Status</u>	<u>Approved</u>
	<u>Date</u>		
1. Active: DHW	6/80	see P/E44.06 (2)	
2. Active: Heating	6/80	see P/E44.06	E683-79
B. <u>Subsystems</u>			
2. Thermal Storage	9/80		

Table B4 Recommended Practices II Installation

A. <u>Systems</u>			
1. Active: Heating	1/80		E683-79

Table C4 Performance Specifications IV Functional
Elements

D. <u>Collector Gaskets and Sealants</u>			
1. Flat Plate	9/78		
2. Other than flat plate	6/79		
3. Seals contact with fluids	6/79		
K. Flexible connections			
	6/81		

CABO

COUNCIL OF AMERICAN BUILDING OFFICIALS

BSR/CABO 1
5-23-80

MODEL DOCUMENT FOR CODE OFFICIALS ON SOLAR
HEATING AND COOLING OF BUILDINGS

RECOMMENDED REQUIREMENTS TO CODE OFFICIALS
FOR SOLAR HEATING, COOLING AND HOT WATER
SYSTEMS

DOE/CS/4281-1 3rd Draft 3/7/80
Submitted for concurrent review 2/28/80 by
B.S. Trant. Received BSR 3/5/80.
Accredited Org. PRC 4/4/80 - 6/4/80.

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NEMA

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

SEIA

SOLAR ENERGY INDUSTRIES ASSOCIATION

SEIA 1-79	SEIA CERTIFIED THERMAL PERFORMANCE RATING
	STANDARD FOR SOLAR COLLECTORS
2-80	No comment.

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SEREF

SOLAR ENERGY RESEARCH AND EDUCATION FOUNDATION

SEREF (NBSIR 78-1143A, June 1978)

Table D1 Standards for Qualification/Accreditation
Laboratories

	<u>Planned Completion Date</u>	<u>Status</u>	<u>Approved</u>
C. <u>Collector Components</u>	12/78		

Table E1 Standards for Certification

C. <u>Collector Components</u>	12/78
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UL

UNDERWRITERS LABORATORIES

P/UL 1279
8/80

SAFETY STANDARD FOR SOLAR COLLECTORS
Submitted on 11/30/79 to industry and others
interested for review. Comment period closed
ED 3/31/80. Proposed revisions of draft being
prepared.

UL (NBSIR 78-1143A, June 1978)

Table A5 Methods of Test III Safety

	<u>Planned Completion Date</u>	<u>Status</u>	<u>Approved</u>
C. <u>Components</u>	3/79	see P/UL 1279	

SDO Assignments: NBSIR 78-1143A, June 1978

SDO

Reference to Tables

AAMA
AIA
ARI
ASHRAE
ASME
ASTM
NBS
NEMA
SEREF
UL

C1
B1, B4
D1, E1
A1, A2, B1, B2, C1
A2, C2, C3
A1, A2, A3, A4, B1, B2, B3, B4, B5, B6, C4
consensus thru ASTM
C2
D1, E1
A5

SDO Assignments: NBSIR 78-1143A, June 1978

METHODS OF TEST

<u>I. Functional</u>	<u>Table</u>	<u>SDO</u>
A. <u>Thermal Performance</u>	A1	
1. Systems		ASTM, ASHRAE
2. Subsystems		ASHRAE
3. Components		ASHRAE
4. Functional Materials		ASTM
B. <u>Optical Performance</u>	A2	
1. Functional Materials		ASTM
C. <u>Mechanical Performance</u>	A2	
1. Systems		ASHRAE
2. Subsystems		ASHRAE
3. Components		ASME
<u>II. Durability/Reliability</u>		
A. Systems, Subsystems, Components	A3	ASTM
B. Components	A3	ASTM
C. Functional Materials	A3, A4	ASTM
<u>III. Safety</u>		
A. Systems	A5	UL
B. Subsystems	A5	UL
C. Components	A5	UL
D. Functional Materials	A5	UL

RECOMMENDED PRACTICES

<u>I. Design and Selection</u>	<u>Table</u>	<u>SDO</u>
A. <u>Systems Design</u>	B1	
1. Active		ASTM, ASHRAE
2. Passive		ASHRAE, AIA
B. <u>Subsystems</u>		
1. Collector Arrays		ASHRAE
2. Thermal Storage	B2	ASTM, ASHRAE
3. Controls		ASHRAE
C. <u>Components</u>	B2	ASHRAE
D. <u>Functional Materials</u>	B2, B3	ASTM
<u>II. Installation</u>		
A. <u>Systems</u>	B4	
1. Active		ASTM
2. Passive		AIA
<u>III. Operation</u>		
A. <u>Systems</u>	B5	
1. Active, Residential		
2. Active, Commercial		ASTM
<u>IV. Maintenance</u>		
A. <u>Systems</u>	B6	
1. Active, Residential		
2. Active, Commercial		ASTM