

# Radian Research, Inc.

Power and Energy Measurement Specialists

*Superior Products for Testing and Calibration*



R  
A  
D  
I  
A  
N



**Tim C. Everidge**  
**President and Chief Executive Officer**

**Radian Research, Inc.**

Power and Energy Measurement Specialists

At Radian Research we are power and energy measurement specialists. Our test and measurement instruments are used around the world . . . in standards laboratories, energy meter shops and in the field at the energy meter site. Many customers have referred to our energy reference standards as "little magical blue boxes." A mentality of uncompromising power and energy reference performance is nothing new to Radian Research -- it was firmly established by our founder, Glenn A. Mayfield.

Mr. Mayfield was an inventor and physicist who pioneered new concepts in the field of energy measurement instrumentation. The company released its first product in 1985 and quickly catapulted to the leading provider of energy reference standards and power sourcing calibrators. Since 1985 the company has consistently released new products of innovation in the field of energy reference and energy calibration instrumentation providing accuracy, precision and stability levels that are arguably the best available from private industry. Today, we provide a multitude of products to meet a variety of test and measurement applications . . . from standards to calibrators and from test kits to systems. If you have a test and measurement need related to power and energy references, energy meter testing, power sourcing calibrators, or current transformer analysis, then we have a solution.

The performance of Radian Research as a company has been strong and the future looks promising. In 2008, the Board of Directors approved a resolution creating a trust and implementation of an Employee Stock Ownership Plan (ESOP) thereby making Radian Research a 100% employee owned company. I believe this new employee ownership structure will foster an entrepreneurial spirit in the employees that will be used to carry on Mr. Mayfield's legacy of Radian Research's worldwide leadership in power and energy measurement instrumentation. The employee owners of Radian Research appreciate your business.

Respectfully,

Tim C. Everidge  
President and Chief Executive Officer



# Setting the *Energy* Standard



Lafayette, Indiana USA

***Radian Research, Inc. is a recognized world leader in the design and development of:***

- ***Energy Reference Standards***
- ***Energy Meter Testing Systems***
- ***Current Transformer Testers***
- ***Automated Laboratory Energy Reference Systems***

***Radian provides AC energy and power reference standards that are absolutely unequalled in accuracy, precision and stability. Our customers include:***

- ***National Metrology Institutes***
- ***Electric Power Companies***
- ***Electric Energy Meter Manufacturers***
- ***Energy Meter Test System Manufacturers***

## Radian Dytronic Energy Reference Standards

### ***Features common to ALL Radian RD Standards***

- Radian Designed Integrating A/D Signal Converter
- 4 Quadrant Simultaneous Multimeasurement
- Selectable VAR/VARhour Measurement Approaches
- Power Analysis Including Harmonics, Vectors and Trending
- Built-in Comparator or Computer Option
- PC Interface with Multiple Software Applications
- Analog Sense (up to 20 mA DC current)



RD-33

The RD Family of AC Energy and Power reference standards utilize Radian's Dytronic measurement technology consisting of a Radian designed Integrating Analog to Digital Signal Converter. Unlike off-the-shelf A/D Converters used in other instruments, Radian's patented A/D Converter is specifically designed and optimized for energy and power measurement. This unique design makes RD standards absolutely unsurpassed in their ability to accurately measure "real world" waveforms. The RD standards' A/D Converter is combined with Radian's renowned electronically compensated voltage and current input transformers and a hermetically sealed reference set to provide the highest degree of accuracy, stability and versatility offered in an AC Energy and Power standard. RD standards are available in many different configurations and accuracy classes to meet ALL of your testing and calibration needs.

**Guaranteed Accuracy:** When comparing reference measurement instruments, it is essential to understand exactly how accuracy is defined for each instrument. All Radian RD standard specifications provide a **Guaranteed Accuracy**, which **includes** error allocation for the variables of **stability, power factor, traceability uncertainty** and **test system errors**. Unlike many competitive reference instruments, there are no incremental error adders from these four variables. Guaranteed Accuracy refers to ALL measurement functions supported by a given model, and applies across a model's entire voltage and current operating range.

## Single-Phase Energy Reference Standards

### **Primary DC/AC Transfer Standards**

- Measurement Repeatabilities of 1 ppm at 120Volts, 5Amps
- Non-Galvanic Current Connection
- Concentric Core Current Comparator
- Interface to External DC References
- External DC Power Supply
- DC to AC Transfer Accuracy of 50 ppm



RD-22

#### **Guaranteed Accuracy: 50 ppm +/- Traceability Uncertainty**

The RD-22 Primary Transfer Standard represents the state-of-the-art technology in a commercially available true DC to AC accuracy transfer reference. Typical AC measurement accuracies are within the limits of traceability, making the RD-22 one of the most accurate AC energy and power standards in the world. A measurement repeatability of 1 ppm at 120Volts, 5Amp inputs makes the RD-22 ideally suited for NMI Laboratory intercomparisons.

External DC references for voltage, resistance and time can be interfaced and compared directly to the RD-22's internal reference set. This unique feature of the RD-22 provides a path from AC Measurements to the fundamental DC references used to derive these AC Measurements. An external DC Auxiliary Power Supply minimizes 60/50 Hz line frequency interference from coupling to the measurement circuitry of the RD-22, further assuring outstanding performance characteristics.

### **Portable Lab Standards**

- Maintain AC Energy Traceability to National Metrology Institutes
- Certify Accuracy of Meter Shop Test Boards
- Certify Secondary and Working Standards
- Certify AC voltage, current and power sources
- Test High End Revenue Billing Meters
- Small, lightweight, easy to transport **+/- 0.01% Guaranteed Accuracy**



RD-23

The Radian RD-23 Single-phase Reference Standard is one of the most accurate and versatile measurement instruments ever designed in a compact package. The RD-23 provides a guaranteed accuracy of 0.01% for all measurement functions across its entire operating range, with a typical accuracy that is within NMI traceability uncertainties. The RD-23's diminutive size makes it ideally suited as a transfer standard that can be easily shipped and transported to locations around the world. The RD-23 can also be used as an ultra-accurate "field" standard for testing of high end revenue billing meters such as those found in sub-station and power plant installations.

***The Metrology Lab is responsible for final calibration of new products. They also perform various assembly testing for Production as well as firmware verification and validation testing. Our metrology lab supervisor is directly responsible for the chain of standardization and traceability to NIST. The metrology lab also performs crosscheck testing and all necessary testing of secondary working standards/systems.***



## Portable Field Standards

- Test Revenue Billing Meters
- Two Accuracy Classes Available
- Small, Compact Package

RD-20



RD-21



**+/- 0.04% Guaranteed Accuracy +/- 0.02% Guaranteed Accuracy**

The Radian RD-20 and RD-21 Single-phase Portable Field Standards provide the ultimate “Measurement Engine” for portable and stationary energy meter test systems. They are available with flexible features and options to meet a diverse set of testing applications. Rack mount versions are also available for stationary test systems that require only singlephase measurement.

## Three-Phase Energy Reference Standards

### Portable Lab Standards

- Maintain AC Energy Traceability to National Metrology Institutes
- Harmonic Analysis
- Certify Accuracy of Meter Shop Test Boards
- Certify Secondary and Working Standards
- Certify AC voltage, current and power sources
- Test High End Revenue Billing Meters
- Small, lightweight, easy to transport



RD-33

**+/- 0.01% Guaranteed Accuracy**

The Radian RD-33 Three-phase Reference Standard is one of the most accurate and versatile measurement instruments ever designed. The RD-33 provides a guaranteed accuracy of 0.01% for all measurement functions across its entire operating range, with a typical accuracy that is within NMI traceability uncertainties. The RD-33’s portability makes it ideally suited as a transfer standard that can be easily shipped and transported to locations around the world. The RD-33 can also be used as an ultra-accurate “field” standard for testing of high end revenue billing meters such as those found in sub-station and power plant installations.

*Our Customer Service Department provides exceptional technical abilities and qualifications. The depth and breadth of knowledge held by our Applications Engineers combined with a genuine desire to help the customer by providing expert technical support of the company’s entire product and service offering is our primary focus. Service is administered with a team approach to providing outstanding sales and technical support and is bolstered by the use of a workgroup automation software package*



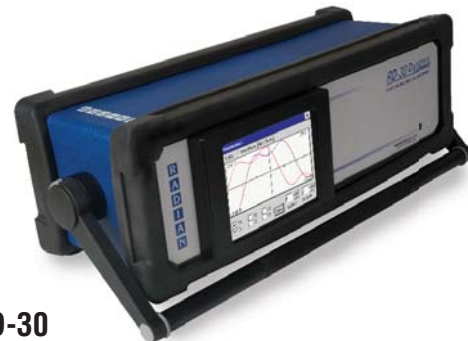
# Radian Research...Setting the *Energy* Standard

*Our Graphics Lab is state of the art equipped. The lab designs and produces many customer support items such as product literature, operations manuals and maintains the web site. The lab directly supports production with the design and production of faceplate labels for Radian product. They also perform various activities that support internal and external corporate communications.*



## Portable Field Standards

- Test Revenue Billing Meters
- Two Accuracy Classes Available
- Small, Compact Package



RD-30

**+/- 0.04% Guaranteed Accuracy**



RD-31

**+/- 0.02% Guaranteed Accuracy**

The Radian RD-30 and RD-31 Three-phase Portable Field Standards provide the ultimate "Measurement Engine" for true three-phase, portable and stationary energy meter test systems. They are available with flexible features and options to meet a diverse set of testing applications. Rack mount versions are also available for stationary test systems.

## Analyzing Standards

- Analyze Entire Metering Installation
- Selectable accuracy classes
- Powerful Testing and Analysis software
- Optional Built-in Computer with touch screen
- Data Storage and Transfer

RD-30/31/33



**"Site Analyzer" Package**

The Radian Research Three-phase Analyzing Standards, consisting of the RD-30/31/33, are the ultimate instruments for on-site accuracy testing of electricity meters, performing power quality analysis, testing CTs, and site wiring confirmation. Built upon the robust and world renowned performance of the Radian Research RD-3X family of reference standards, these Analyzing Standards provide for unsurpassed accuracy, functionality, and ease of operation. Radian Research Analyzing Standards are designed to work with customer load or with a stand-alone current source.

**ISO 9001-2000 Certified**

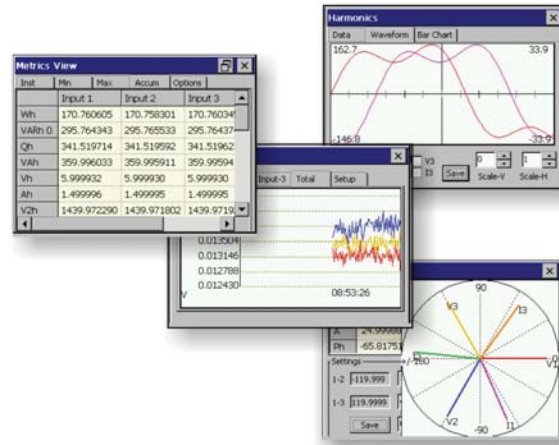
Phone: 765-449-5500

www.radianresearch.com

## Reference Standard Accessories

### PC-Suite Test and Analysis Software

- Create and Save Test Configurations
- Extensive Data Management Capabilities
- Works with ANY RD Reference Standard
- Operates from all service voltages: 120 to 480 volts



PC Suite Test and Analysis Software is the ideal complement to a Radian RD reference standard. PC-Suite is a set of simple, yet extremely powerful, software applets that significantly enhance the capabilities of the RD standard. Configure, Metrics, Meter Test, Standards Test, Harmonics, Vectors, Trends, CT Ratio and Burden Testing, Analog Sense Test, Flicker and Automation are the individual applets that make up PC Suite. When combined with the appropriate RD standard, PC Suite provides a diverse mix of functionality never before seen in an energy reference system. Connection to the RD standard is made via an RS-232 serial interface, with Bluetooth wireless option for three phase RD models.

### Test Probes and Current Transformers



- Extend Current Input Range of RD Standards
- Perform Ratio or Burden Tests on a CT
- Many styles and forms available

Radian offers a variety of test probes and external current transformers to increase versatility of measurement. Clamp-on or flexible rope-style CTs are available to extend the current input capabilities of your RD standard. These types of external CTs are used when direct connection into a current circuit is not possible. External CTs are used on the primary side of an in-service CT to perform a CT Ratio test. Direct connect test switch probes are available to perform CT Burden testing or to test a revenue meter installed with a test switch using existing, or "customer load" conditions.



*Radian maintains an Engineering Department dedicated to the research and development of the world's most innovative power and energy measurement instrumentation. It is the engineering work from the Research group that is fundamental to making Radian's product line innovative and technologically superior. Development Engineering activities involve the application of researched technology into the creation of new products in coordination with Marketing product proposals. The end result is a product that is easily produced, tested and meets customer requirements.*

## Current Transformer Testers

### *Transformer Analyzer*

- Test CT Secondary Loop Integrity with or without secondary current
- Tests CT's Admittance and Burden capability
- Determines CT Ratio and Phase Angle
- Test PT's Secondary Burden capability
- Test performed without interruption of service to customer

The Model 505 can quickly and easily be used to identify defective PT's and CT's with or without current flow. No disruption of the customer service is necessary. Large 4 line 40 character back lit LCD display. Tests ratio, burden, phase angle, and admittance. Measures phase voltage, phase current, and the phase angle between them. Battery or line operated.



Model 505

### *CT Burden Tester*

- Rated 20 Amps
- Available Burden from 0.1 to 15.8 ohms
- Easy to Read Current Values
- Controlled Dwell Time to Prevent Element Burnout
- Durable/Compact design

The Radian Research Model 585 CT Burden Tester is a hand held unit rated for use up to 20A. The design features a digital LED meter for displaying the CT secondary current. The burden is applied for a specific length of time controlled by circuitry inside the unit to help prevent the burnout of the burden elements.



Model 585

### *CT Burden & Ratio Analysis Module*



RD-BR1

- Safest and Fastest CT Tester Available
- Unparalleled Measurement Accuracy
- Adds No Magnetization to CT
- Demagnetizes CT cores
- Lightweight, Solid State Design

The RD-BR1 Burden & Ratio Analysis Module is an innovative accessory used with Radian's RD-2x or RD-3x Dytronic Standards to enable automated CT Burden and Ratio testing. The RD-BR1 is designed specifically for in-service testing of CTs without interruption to the customer's service. Burdens are inserted and removed in a one line cycle. The extreme precision and speed with which burdens are inserted and removed minimizes any residual magnetization of the CT while also reducing uncertainty of measurement caused by fluctuation of load. The RD-BR1 is arguably the safest CT burden & ratio tester available. Multiple stages of protection are employed to prevent harm to the user. An automatic system continuity check is performed before opening the secondary of the CT. If an open loop is detected the RD-BR1 will automatically close the loop. The Radian RD-BR1 Burden & Ratio Analysis Module is a safe, simple and economical way to add CT burden and ratio testing functionality to a Radian RD standard.

# Energy Meter Test Kits and Accessories

## Closed Link Portable Test Kit

- Test Single Phase and Polyphase meters
- Performs Series and Element tests with no re-wiring
- 30 amps maximum test current
- Rugged and Durable
- Add any single-phase RD Field Standard



Model 403

The Radian Research Model 403 Portable Test Kit tests all single and polyphase meters with their voltage clips closed. Series and element tests are switch selectable from the front panel. No need to rewire between tests! Switch selectable currents from 30A to .25A. Both unity and 50% lagging power factor can be tested. Voltage ranges from 120V - 480V, 60Hz

## Open Link Portable Test Kit

- Test Single-phase and Polyphase meters
- Compatible with most available Field Test Jacks
- 50 Amps Maximum Test Current
- Rugged and Reliable
- Supports Older Vintage Energy Standards



Model 453

The Radian Research Model 453 Portable Test Kit tests all single and polyphase meters with their voltage clips open. The current output capacity is 50A and covers all common service voltages from 120V -480V. Both unity and 50% lagging power factor can be tested. The model 453 will operate with older vintage energy reference standards but is ideally complemented with a single-phase RD Field Standard.

## Counters/Comparators



RM-111

- Test any Reference Standard, Watthour Billing Meter or Test Board
- Eliminate Manual Recordkeeping
- Calculate/Display Test Results
- Store/ Upload Test Data
- Preset Test Configurations

The Radian Research RM-111 Automated Comparator is the definitive test accessory for use with Radian reference standards and energy meter test kits. The RM-111 eliminates manual calculation and recordkeeping associated with two primary applications: field testing of watthour billing meters and laboratory testing of reference standards. The RM-111 uses precise digital counters to count and compare calibration pulses from reference standards and billing meters. Upon entering test parameters, such as Kh and test duration, the RM-111 facilitates the testing process then calculates displays and stores the results of the test. The RM-111's versatility enables strategic automation of field and lab testing operations while maintaining compatibility with existing test equipment.

## Energy Meter Test Systems and Accessories

### **Portable Single-Phase Test System**

- Unparalleled Accuracy
- Utilizes a True Radian Reference Standard
- Store/Upload Test Result Data
- Portable Printer Support
- Time/Date Stamp
- Simple Operation
- Light, Compact Package

RM-17



The RM-17 Portable Watthour Test System is the most accurate self-contained residential meter tester available. Unlike other residential meter testers, the RM-17 is not simply an electronic meter or a resistive load used as a verifier. Instead, the RM-17 incorporates a true field proven Radian Research watthour standard as its reference. The RM-17 has a guaranteed accuracy of +/- 0.05% which is traceable to NIST. The RM-17 is the only test system simple and safe enough for non-metering personnel yet advanced enough for experienced meter technicians. At an approximate total weight of only 8 pounds, the RM-17 is one of the lightest portable test systems available. Offering simplicity without compromise, the RM-17 sets a new standard by which all energy meter testing will be judged.

### **Portable Polyphase Test System**



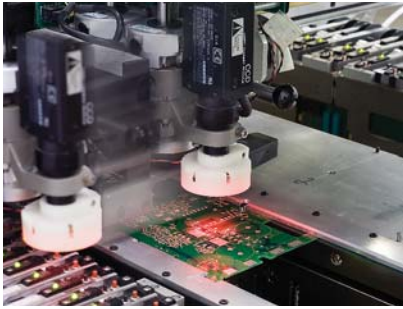
Model 441

- Fully Automatic Closed-Link meter testing
- Controlled from external PC
- Automatic Data Collection
- Selectable Accuracy Class Single-phase RD Standard
- Ideal for Substation and Inter-tie Applications

The Radian Research Model 441 Portable Test System tests all single and poly-phase meters with their voltage clips closed. The 441 synthesizes all necessary voltage and current wave forms and is not dependent on the quality of the service voltage. This feature makes the 441 ideally suited for testing substation or inter-tie meters where a constant, regulated voltage is desired. Test currents up to 50 amps and voltages up to 480 volts are available.



***The Radian Quality Assurance organization includes the Product Service Laboratory. This laboratory provides dedicated customer support for product in need of planned recalibration, warranty service, or repair. Data on calibration and repair services is collected and analyzed and used within the new product development process and current production processes to provide insight into areas for continual improvement.***



*Our printed circuit assembly line consists of a state of the art automated component assembler with computer controlled solder reflow. The printed circuit boards are processed in an automated board cleaner that utilizes water from our reverse osmosis system.*

## **Calibration Pulse Sensors**



**RM-1H**

- **Optical Pickups for Infrared or Visible LED**
- **Reflective Meter Disk Sensors**
- **Various Mounting Options**
- **KYZ Pulse Pickups**
- **Magnetic Coupling Adapters for Optical Pickups**

Radian Research offers a complete line of Calibration Pulse Sensors to help facilitate automated testing of energy revenue meters. These sensors are test accessories for use with Radian reference standards, Energy Meter Test Kits, Energy Meter Test Systems and Laboratory Energy Reference systems.

## **Automated Laboratory Energy Reference Systems**

### **Automated Energy Standard Calibrator**

- **Superior accuracy**
- **Calibrate up to 16 standards at a time**
- **Eliminate manual calculation and record keeping**
- **Reduce test times from days to hours**
- **Flexible upgrade options**
- **Harmonic response evaluation**
- **Efficient, cost effective testing**
- **Simple to operate**

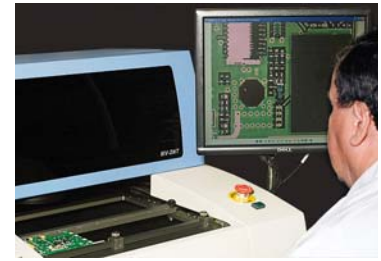


**RS-703A Syntron**

The RS-703A is a totally automated laboratory calibration system that provides automated testing of field and primary standards as well as qualification testing of new solid state meter designs. The RS-703A will calibrate these devices with a typical accuracy of 0.005% (50 PPM). The RS-703A will replace existing standards, references and loading devices so as to provide all the functions of a complete AC metrology laboratory with unequalled accuracy.

The RS-703A can automatically test up to 16 standards simultaneously. This testing capability effectively reduces test times to hours from what previously required days. The RS-703A is unmatched in the ability to do evaluation testing of meters, particularly the multiple function solid state meters now becoming widely used. Problems with meters such as crosstalk between elements, temperature influences, drift, harmonic distortion sensitivity and three-phase versus single-phase calibration are readily detected.

*Manufacturing and Assembly is responsible for producing the products that Radian markets and sells. The areas of production include PCBs (printed circuit boards), transformers, sub-assembly, final assembly, final testing and calibration. We utilize a computer based program for procurement and the building of all Radian Research products.*



## Laboratory Services

### ***Recertification of Radian Standards***

Radian standards have been the reference standards in North America for the past 25 years. There is no better alternative for services on your Radian standards than going directly to the source. No other laboratory in the world knows more about your Radian standard and can assure that its performance is optimized. Radian will not settle for anything less. Radian standards are tested at voltage, current and phase angle combinations across their entire operating range. Calibration adjustments are made to optimize measurement accuracy at every operating condition.

### ***Recertification of Non-Radian Standards***

Recertification services are available for any AC energy reference standard. These recertification services do not encompass any adjustments of calibration or repairs. Recertify at cardinal test points only or across the entire operating range of the standard. Custom test point options allow you to select exactly what points you want certified. Temperature testing is also offered for an additional charge. Certifiable functions include Wh, VARh, VAh, mAh, mVh, amps squared hours and volts squared hours.

### ***Recertification of AC Measurement Instruments***

Radian can test and certify other AC measurement instruments. These instruments are tested using a state of the art AC metrology system with worst case measurement accuracy of +/-0.01% on all of the following instruments:

- AC Voltmeters 60 VAC to 600 VAC (lower AC voltages available at slightly lower accuracy)
- AC Ammeters 0.2 amps to 67 amps (lower AC currents available at slightly lower accuracy)
- AC Wattmeters At any combination of above voltage and current points
- Phase Angle Meters Any phase angle from 0 to 360 degrees, or -180 to +180 degrees

### ***Remote Accuracy Certification***

Radian now offers the same benefits of a NIST traceable accuracy certification to those customers unable to send their standard in. Remote Accuracy Certifications entail sending a certified Radian transfer standard to the customer for a designated period of time. This transfer standard comes with a complete NIST traceable certificate of calibration at test points across its entire operating range. This standard is then used to certify "other" reference standard(s). This service is ideally suited to those customers having test boards with reference standards that are either integrated or not easily removed. Most modern test boards have software built in to facilitate testing against an external reference. Multifunction standards are available so that the voltage, current, frequency and phase angle outputs of the test board can also be tested and certified. As an option, an as left test sheet on the transfer reference standard can be run and sent to the customer upon its return to Radian. By comparing the original test results with the as-left data, the user can be assured that the transfer standard's accuracy did not shift as a result of shipment. For older test boards, additional accessories are available to help facilitate the testing manually.

**ISO 9001-2000 Certified**

Phone: 765-449-5500

www.radianresearch.com

## Company History and Highlights

Radian Research, Inc. is a privately held corporation founded by Glenn A. Mayfield in 1982. As an electrical measurement physicist, he previously worked at Scientific Columbus and Duncan Electric/Landis & Gyr Metering. From that experience he realized that watt-hour reference standards would require a technological advancement to be accurate enough to test new emerging electronic watt-hour meters. Therefore, he established the Company's focus as the research, development and production of advanced power and energy measurement products for the electric utility industry.

In 1985 Radian Research began production of its first product, the RM-10 Portable Watt-hour Standard. The RM-10 provided specific innovative features, developed by Glenn Mayfield, which improved accuracy, enhanced testing efficiency and provided greater safety. Totally autoranging inputs for current (0 to 50 amps), voltage (60 to 600 volts) and auxiliary power (80 to 600 volts) made it impossible to damage the unit by applying the signal to the wrong tap. A true watt-hour display with a Kh of 1 on all ranges allowed for a much simpler energy meter error calculation. Remote digital display gating eliminated the need for switching the potential while further enhancing accuracy. With its high accuracy, innovative features, and a weight of only 5.5 pounds, the RM-10 soon became the number one selling watt-hour standard in North America. It should be further emphasized that the Radian RM-10 was the first energy metering instrument in the world to provide a wide range auxiliary power input as well as the first to provide an autoranging voltage input – these were innovations by Glenn Mayfield that dramatically changed the technology of energy meters and energy standards made by all manufacturers of such products.

In 1986 Radian Research introduced its first primary watt-hour standard, the RM-11. The RM-11 was by far the most accurate and lightest weight self-contained primary watt-hour reference standard manufactured in North America, up until Radian introduced the RD Dytronic line of Reference Standards. The RM-11 also provided many of the same innovative features which were previously introduced with the RM-10. The RM-11 was so accurate and stable that many laboratories in the US began transferring the watt-hour directly to NIST instead of the traditional DC to AC transfer methods.



**Radian's First Product 1985**

From 1986 to 1990 Radian added various watt-hour meter testing accessories to their product line. These accessories assisted in the automation of testing induction and electronic watt-hour meters. During this same time Radian Research was investing several million dollars into the research and development of an automated AC laboratory reference system product. Then, in 1990 Radian Research introduced the RS-703A Syntron Automated Calibration System with an accuracy of +/- 0.005%.

By 1993 Radian had experienced significant growth requiring it to purchase land and have a 22000 square foot custom facility built. This facility is the Corporate Headquarters for Radian Research and houses all aspects of the business. Since 1993 Radian has continued to introduce new technologies and new subsequent products, including the RD Dytronic line of single-phase and three-phase multifunction reference standards and DC to AC transfer standards. The RD standards contain Radian designed Analog to Digital Converters optimized for power and energy measurement.

In 2005 Radian Research purchased Utility Test Equipment Company (UTEC). The acquisition of UTEC will enable Radian to significantly expand its product offering to the electric utility industry by providing turnkey field and shop test systems as well as software solutions that allow customers ultimate flexibility in meeting their testing and calibration requirements.

Today Radian Research is recognized as a world leader in power and energy measurement instrumentation providing a multitude of electrical metrology products that offer accuracy levels that are arguably the best in the world.

## About Radian's Founder

Glenn Mayfield was one of the most respected men in the electric utility industry. He was a brilliant scientist, inventor, engineer and entrepreneur. Glenn's lifelong passion and focus has been the relentless pursuit of perfection in the area of power and energy measurement. Radian Research, Inc. sprang from Glenn's imagination, ingenuity, passion and dedication to being the absolute best. Radian went from Glenn's imagination to becoming one of the most recognized and respected brand names in the electric utility industry. Glenn had 13 design patents in the area of electrical metrology. His genius mindset and determination forged Radian's identity as The Energy Standard by which all others are compared. The name "Radian" has become synonymous with "Standard" throughout the electric utility industry and Radian is arguably the leading producer of power and energy standards in the world.

Anyone who has personally met Glenn knows he was truly one of a kind. Wherever he went, whoever he met, Glenn Mayfield left an impression. Glenn will be deeply missed and can never be replaced. At the same time, Glenn's spirit lives on in the loyal, dedicated employees of Radian Research. His vision and determination to be the absolute best is alive and well, echoing through the halls of Radian Research, Inc. Glenn's desire was for Radian to continue to play a leadership role in the industry long after he was gone. To meet that objective, Glenn built a strong management team, a capable engineering department, and a responsive production department in establishing a clear succession plan. The employees of Radian Research are dedicated to carrying on Glenn's legacy in a manner that would make him proud.



**Glenn A. Mayfield**  
Oct. 7, 1944 - Jan. 17, 2007

## Radian... an employee owned company

Mr. Mayfield desired that his stock be liquidated in a manner that was in the best interest of the employees. After in depth review and analysis of the alternatives by its Board of Directors, employee ownership was determined to be the best choice and effective December 19, 2008, Radian Research, Inc. became a 100% Employee Owned Company by implementing an Employee Stock Ownership Plan (ESOP). It is believed that Radian's new employee ownership structure meets the wishes of its founder and that the new structure will help foster the entrepreneurial spirit of its employees to further Radian's worldwide presence and its continued success.



**Radian Research, Inc.**  
3852 Fortune Drive  
Lafayette, Indiana 47905 USA

Phone: 765-449-5500  
Fax: 765-448-4614  
Web Site: [www.radianresearch.com](http://www.radianresearch.com)