

INTERNATIONAL  
CERTIFICATION  
- A GATEWAY  
TO GLOBAL  
MARKET

DR.R.JAYAPAL

**QUALITY IS NOT WHAT THE SUPPLIER PUTS IN; IT IS WHAT THE CUSTOMER GETS AND WHAT HE IS WILLING TO PAY FOR.**

**- PETER DRUKER**

**TODAY'S CUSTOMER, IN ADDITION TO GETTING THE BEST FINANCIAL DEAL, ALSO LOOKS FOR THE NECESSARY APPROVALS/CERTIFICATIONS TO ENHANCE HIS CONFIDENCE IN THE PRODUCT.**

**ORGANISED STANDARDISATION STARTED  
AFTER THE INVENTION OF STEAM ENGINE  
& CONSEQUENTIAL INDUSTRIAL REVOLUTION.**

**FIRST DECADE OF 20 TH CENTURY SAW THE  
BIRTH OF SEVERAL STANDARDISATION BODIES  
LIKE,**

- NATIONAL BUREAU OF STANDARDS (NBS)**
- SOCIETY OF AUTOMOTIVE ENGINEERS (SAE)**
- AMERICAN SOCIETY FOR TESTING & MATERIALS  
(ASTM)**
- AMERICAN SOCIETY OF MECHANICAL  
ENGINEERS (ASME)**

**STANDARDISATION IS  
TO INDUSTRY AND TRADE,  
WHAT CULTURE AND MANNERS  
ARE TO SOCIETY**

**- SHRI C.RAJAGOPALACHARI**

# NATIONAL STANDARD BODIES

USA	-	UL
GERMANY	-	TUV,GL,VDE
SWEDEN	-	SEMCO
ITALY	-	IMQ
NETHERLANDS	-	KEMA
CANADA	-	CSA
ENGLAND	-	BSI,LR

(CONTD...)

# NATIONAL STANDARD BODIES

<b>SWITZERLAND</b>	<b>-</b>	<b>SEV</b>
<b>FRANCE</b>	<b>-</b>	<b>UTE</b>
<b>DENMARK</b>	<b>-</b>	<b>DEMCO</b>
<b>AUSTRALIA</b>	<b>-</b>	<b>TICK MARK</b>
<b>JAPAN</b>	<b>-</b>	<b>NK</b>
<b>NORWAY</b>	<b>-</b>	<b>NEMCO</b>
<b>FINLAND</b>	<b>-</b>	<b>FIMCO</b>

# **CERTIFICATION SERVICES IN** **INDIA**

- \*CANADIAN STANDARDS  
ASSOCIATION (CSA)**
- \* UNDERWRITERS  
LABORATORIES (UL)**
- \*VERBAND DEUTSCHER  
ELECTROTECHNIKER e.V (VDE)**

# **CERTIFICATION PROCESS**

- 1) APPLY**
- 2) TEST SAMPLE OF PRODUCT**
- 3) EVALUATE**
- 4) REPORT FINDINGS**
- 5) PREPARE DESCRIPTIVE REPORT**
- 6) ISSUE CERTIFICATE OF COMPLIANCE**



# **CE MARKING**

## **( CONFORMITE EUROPEENNE)**

# **ELECTROMAGNETIC  
COMPATIBILITY**

# **SAFETY REQUIREMENTS**

# **ELECTROMAGNETIC COMPATIBILITY** **TESTS**

**1.CONDUCTED EMISSION TEST**  
**(EN500081-2,1994)**

**2.RADIATED EMISSION TEST**  
**(EN50081-2,1994)**

**3.RADIATED SUSCEPTIBILTY TEST**  
**(EN50082-2,1995)**

**4.ELECTRICAL FAST TRANSIENTS TEST**  
**(EN50082-2,1995)**

**(CONTD...)**

# **ELECTROMATIC COMPATIBILITY**

## **TESTS (CONTINUATION)**

- 5.ELECTROSTATIC DISCHARGE IMMUNITY TEST  
( EN50082-2,1995)**
- 6.HIGH ENERGY SURGE IMMUNITY TEST  
( EN50082-2,1995)**
- 7.POWER FREQUENCY MAG.FIELD TEST  
(IEC 61326,1997)**
- 8.CONDUCTED RF IMMUNITY TEST  
(IEC 61326,1997)**

# **SAFETY TESTS (IEC1010-DIRECTIVE)**

- 1. ADHERENCE TO MARKING & DOCUMENTATION PROCEDURES**
- 2. PROTECTION AGAINST ELECTRIC SHOCK**
  - A) SINGLE FAULT TEST**
  - B) EARTH LEAKAGE TEST**
  - C) CREEPAGE & CLEARANCE TEST**
  - D) ACCESSABLE PARTS WITH TEST FINGURE**
  - E) DIELECTRIC STRENGTH TEST  
BEFORE & AFTER HUMIDITY TEST)**
  - F) CHORD ANHORAGE TEST**

**(CONTD.....)**

# **SAFETY TESTS (IEC-1010-1 DIRECTIVE)**

**(CONTUNUATION)**

## **3. PROTECTION AGAINST MECHANICAL HAZARDS**

- A) MOVING PARTS TEST**
- B) STABILITY TESTS**
- C) LIFT PROVISION TEST**

## **4) MECHANICAL RESISTANCE TO SHOCK, VIBRATION & IMPACT**

- A) RIGITY TEST**
- B) IMPACT HAMMER TEST**
- C) DROP TEST**
- D) CORNER/FACE DROP TEST**
- E) VIBRATION TEST**

# **SAFETY TESTS (IEC1010-1 DIRECTIVE)**

**(CONTINUATION)**

- 5. TEMP. LIMITS & PROTECTION AGAINST FIRE**
- 6. ENCLOSURE PROTECTION TEST**
- 7. DEGREE OF POLLUTION TEST**
- 8. RESISTANCE TO HEAT TEST**
- 9. RESISTANCE TO MOISTURE & LIQUID TEST**
- 10. PROTECTION AGAINST RADIATION**
- 11. PROTECTION AGAINST LIBERATED GASES  
EXPLOSION & IMPLOSION**

# Certificate of Compliance

Certificate: 1054042

Master Contract: 200740

Edition: 1


Date Issued: April 8, 2000

Issued to: Bharat Heavy Electricals Limited  
Building No. 79  
620014 Tiruchirappalli  
India

*The products listed below are eligible to bear the CSA Mark  
with indicator as shown below*



Issued by: Sebastian George, P. Eng.

Signature: 

## PRODUCTS

CLASS 9091 01 - MISCELLANEOUS

Electronic Water Level Indicator, Model BHELVISION 20, permanently connected, rated 110 V, 50 Hz, 200 VA,  
Pollution Degree I, Overvoltage Category II.

## APPLICABLE REQUIREMENTS

IEC 61010-1: 1990 + A1: 1992 + A2: 1995 - Safety Requirements for Electrical Equipment for Measurement,  
Control and laboratory Use



CSA INTERNATIONAL

Standards  
Development

QMI  
Management Systems Registration

Certification  
and Testing

CSA File No: 200740-2500001916

## Letter of Attestation

*CSA international has completed an evaluation of  
Electronic water Level Indicator, Model BHELVISION -20,  
Manufactured by Bharath Heavy Electrical Ltd. (BHEL),  
High Pressure Boiler plant, Tiruchirapalli, 620014. India*

*and hereby attests that the above Equipment complies with the  
following standards/requirements, to the extent applicable:*

1. Conducted Emission Test as Per EN 50081-2-1994
2. Radiated Emission as Test as Per EN 50081-2-1994
3. Radiated Susceptibility Test as Per EN 50082-2-1995
4. Electrical Fast Transient Test as Per EN 50082-2-1995
5. Electrostatic Discharge Immunity Test as Per EN 50082-2-1995
6. High Energy Surge Immunity Test as Per EN 50082-2-1995

*Condition for acceptability:*

*The above devise must be used with Computer Surge protection unit Model SP-3,  
Manufactured by Namech, Bangalore*

Issued By:

Sebastian George, P. Eng.  
Senior Engineer

Date Issued: December 20, 1999

Signature: 

This Letter of Attestation is not a substitute for any of CSA's registered Marks.  
We Answer With Solutions

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