

ESTD. 1994

UNIQUE NDTIFY PVT. LTD.

Approved by : AERB (Govt. of India)

NABL ACCREDITED LAB (A Constituent Board of Quality Council of India)

ISO 9001 : 2015, ISO 14001 : 2015 Certified Lab

Facilities : • Non-Destructive Testing • Mechanical Testing • Chemical Testing • Metallurgical Testing • Corrosion Testing

MEMORANDUM OF UNDERSTANDING (MoU)

Between

M/s MHR Northern Structures Pvt. Ltd.

And

M/s Unique Ndtify Private Limited

This Memorandum of Understanding (MoU) is entered into on this 20th day of September 2025, by and between:

M/s MHR Northern Structures Pvt. Ltd., Address (Work) - Khasra Number 511, Bich Pari, Jhalotar, Near Kamla Hotel, Hasan Ganj, Ajoin, Unnao, hereinafter referred to as the **"Client"**,

AND

M/s Unique Ndtify Private Limited an NABL accredited laboratory, having its registered office at House No. 18, Block D, Krishna Nagar, Bagu, Ghaziabad hereinafter referred to as the **"Service Provider"**.

1. Purpose

This MoU outlines the terms and conditions under which the Service Provider will conduct testing and analysis services for the Client, in compliance with NABL standards.

2. Scope of Work

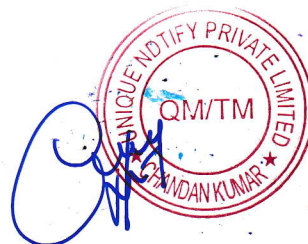
- i. Mechanical Test (YS, UTS & El.)
- ii. Chemical Test
- iii. Bend Test
- iv. Hardness Test
- v. Ultrasonic Test
- vi. Radiographic Test
- vii. Micro Etching

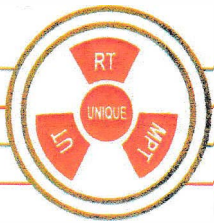
The Service Provider agrees to:

- Perform testing as per the agreed parameters and methods.
- Use only NABL-approved procedures and maintain traceability.
- Submit accurate and timely reports to the Client.
- Maintain quality control and ensure confidentiality.

The Client agrees to:

- Provide required samples and documentation.





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- Make timely payments as per the agreed fee structure.
- Cooperate for any audit-related or inspection needs.

3. Duration

This MoU shall be valid for a period of 7 year(s), commencing from 20/09/2025 and ending on 20/09/2032 unless terminated earlier by mutual consent or breach of terms.

4. Confidentiality

Both parties agree to maintain strict confidentiality of data, reports, and proprietary information shared or generated during the term of this MoU.

5. Compliance and Accreditation

The Service Provider shall maintain its NABL accreditation throughout the term and notify the Client of any changes in status immediately.

6. Termination

This MoU may be terminated by either party with 15 days' written notice. All ongoing work shall be completed or mutually concluded.

7. Dispute Resolution

Any dispute arising out of this MoU shall be resolved amicably. Failing that, it shall be subject to the jurisdiction of the courts of Ghaziabad (Uttar Pradesh).

8. Indemnity

Each party shall indemnify the other against any loss or damage arising out of its breach of obligations under this MoU.

9. Miscellaneous

This MoU does not create a legal partnership or employment relationship.

Any amendments shall be in writing and signed by both parties.

IN WITNESS WHEREOF, the parties hereto have executed this MoU as of the day and year first written above.

For **M/s MHR Northern Structures Pvt. Ltd.**

Name: Mr. Nitin Kumar

Signature: -

Date: - 20-09-2025

For **M/s Unique Ndtify Private Limited**

Name: Mr. Chandan Kumar

Signature: -

Date: 20-09-2025





आवेदन संदर्भ सं. Application Reference No.	आवेदन तिथि Date of Application	केस फाइल नंबर Case File Number	दस्तावेज नंबर Document No.	जारी करने की तिथि Date of Issuance	समाप्ति की तिथि Date of Expiry
24-1402692	05/10/2024	UP-26465-INST	24-IRLOP- 1213442	20/10/2024	20/10/2027

LICENCE FOR OPERATION OF INDUSTRIAL RADIOGRAPHY FACILITY

परमाणु ऊर्जा अधिनियम, 1962 की धारा 16 तथा 17, जो लागू हो के तहत प्रदत्त शक्तियों का प्रयोग करते हुए परमाणु ऊर्जा (विकिरण संरक्षण) नियम {एई(आरपी)आर}, 2004 के नियम (3) के संयोजन में, परमाणु ऊर्जा नियामक परिषद् (एईआरबी) विकिरण फैसिलिटी के संचालन हेतु लाइसेंस जारी करता है।

In exercise of powers conferred under Sections 16 and 17, as applicable, of Atomic Energy Act, 1962 read in conjunction with Rule (3) of the Atomic Energy (Radiation Protection) Rules {AE(RP)R}, 2004, the Atomic Energy Regulatory Board(AERB) issues Licence for operation of radiation facilities.

उपरोक्त संदर्भित आवेदन सं. के संदर्भ में, नियोक्ता **UNIQUE ENGINEERING AND SERVICES, Ghaziabad** के **Mr. RAM SEWAK MAHTO** इसके बाद से इसे लाइसेंसधारक कहा जाएगा, जिसमें निर्दिष्ट प्रावधानों का पालन करने का वचन दिया गया है।

With reference to application no. referred above, the employer Mr. RAM SEWAK MAHTO of UNIQUE ENGINEERING AND SERVICES, Ghaziabad hereinafter referred as Licensee, having undertaken to comply with the provisions specified in the

- परमाणु ऊर्जा अधिनियम, 1962 तथा उसके अंतर्गत बनाए गए नियम Atomic Energy Act, 1962 and the rules framed thereunder,
- संचालन चरणों के लिए निर्दिष्ट आवश्यकताओं के अनुसार लागू कोड, मानक तथा गाइड* *Applicable Codes, Standards and Guides** as specified giving requirements for operation stages
- सक्षम प्राधिकारी द्वारा जारी कोई भी आदेश/निर्देश Any Orders/Directives# issued by the Competent Authority,

परिशिष्ट-1 में निर्दिष्ट इस लाइसेंस के नियमों और शर्तों के अनुसार तालिका 1 (पृष्ठ के दूसरी ओर) में निर्दिष्ट फैसिलिटी को संचालित करने के लिए एतद्वारा अधिकृत है. is hereby authorized to operate the facility as specified in the Table 1 (overleaf) in accordance with the Terms & conditions of this license specified in Appendix-1,

यह लाइसेंस केवल विकिरण संरक्षा की दृष्टि से जारी किया जाता है। अन्य सभी स्वीकृतियां संबंधित केंद्रीय/राज्य/स्थानीय प्राधिकारियों से यथा लागू प्राप्त की जाएंगी। This License is issued only from the radiation safety view point. All other clearances shall be obtained from concerned central/state/local authorities as applicable.



परमाणु ऊर्जा नियामक परिषद्, नियामक भवन, अणुशक्तिनगर, मुंबई 400094 (महाराष्ट्र)
Atomic Energy Regulatory Board, Niyamak Bhavan, Anushaktinagar, Mumbai 400094 (Maharashtra)

वेबसाइट/Website: www.aerb.gov.in

दूरभाष/Tel: 91-22-2599 0656

फैक्स/Fax: 91-22-2599 0650

जारीकर्ता प्राधिकारी Issuing Authority

हस्ताक्षर Signature

प्राधिकारी का नाम Name of the Authority

R. K. Singh

पदनाम Designation

Scientific Officer (G)

आवेदक का नाम और संचार पता

MR. RAM SEWAK MAHTO,
UNIQUE ENGINEERING AND SERVICES,
K87 SECTOR 12 PRATAP VIHAR,
SANTOSH MEDICAL COLLEGE,
GHAZIABAD-201009,
UTTAR PRADESH.

* लागू कोड, मानक और गाइड <https://elora.aerb.gov.in/ELORA/PDFs/List%20of%20regulatory%20documents%20-practice%20wise.pdf> पर उपलब्ध है। The applicable Codes, Standards and guides are available at <https://elora.aerb.gov.in/ELORA/PDFs/List%20of%20regulatory%20documents%20-practice%20wise.pdf>

अतिरिक्त आदेश/निर्देश Additional Order/directive:

MHR NORTHERN STRUCTURES
PRIVATE LIMITED


Executive Director



परमाणु ऊर्जा नियामक परिषद्, नियामक भवन, अणुशक्तिनगर, मुंबई 400094 (महाराष्ट्र)
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फैक्स/Fax: 91-22-2599 0650

भारत सरकार
परमाणु ऊर्जा नियामक परिषद्
विकिरण अनुप्रयोग संरक्षा पभाग



Government of India
Atomic Energy Regulatory Board
Radiation Applications Safety Division

Date of Issue: 21/11/2024

Case file no.: DL-30579-INST

Valid till: 21/11/2027

Document No.: 24-RSO-1228740

Approval of Radiological Safety Officer

1. The PARTNER, JYOTI NDT INSPECTION CO., New Delhi is hereby informed that the Competent Authority, Chairman, Atomic Energy Regulatory Board (AERB), in exercise of powers conferred under Rule 19 of the Atomic Energy (Radiation Protection) Rules, 2004, has approved the nomination of TANUJ KUMAR SHARMA as Radiological Safety Officer (RSO) in the JYOTI NDT INSPECTION CO., New Delhi for the facilities as mentioned in annexure-1 to this document on the basis of information provided in the application.
2. The RSO shall submit the periodic reports to AERB, in the prescribed format on safety status of the radiation installation.
3. The RSO shall promptly report any radiation safety related unusual occurrence to AERB.
4. The RSO shall perform his duties and responsibilities as stipulated in Atomic Energy (Radiation Protection) Rules, 2004 and other related regulatory documents (refer annexure-2).
5. This approval stands cancelled in the event of TANUJ KUMAR SHARMA relinquishing the charge as RSO in JYOTI NDT INSPECTION CO., New Delhi.

Issuing Authority,

R. K. Singh
Scientific Officer (G)

(This is an electronically generated letter and hence signature is not required)

PARTNER
JYOTI NDT INSPECTION CO.
201A,DDA FLAT GAZIPUR, , New Delhi - 110096 (Delhi)

Copy: TANUJ KUMAR SHARMA
JYOTI NDT INSPECTION CO.
201A,DDA FLAT GAZIPUR, , New Delhi - 110096 (Delhi)



परमाणु ऊर्जा नियामक परिषद्, नियामक भवन, अणुशक्तिनगर, मुंबई 400094 (महाराष्ट्र)
Atomic Energy Regulatory Board, Niyamak Bhavan, Anushaktinagar, Mumbai 400094 (Maharashtra)

भारत सरकार
परमाणु ऊर्जा नियामक परिषद
विकिरण संरक्षा प्रभाग



GOVERNMENT OF INDIA
ATOMIC ENERGY REGULATORY BOARD
RADIOLOGICAL SAFETY DIVISION

आवेदन संदर्भ सं. Application Reference No.	आवेदन तिथि Date of Application	केस फाइल नंबर Case File Number	दस्तावेज नंबर Document No.	जारी करने की तिथि Date of Issuance	समाप्ति की तिथि Date of Expiry
23-1172106	15/09/2023	DL-30579-INST	23-IRLOP- 1002928	22/09/2023	22/09/2026

LICENCE FOR OPERATION OF INDUSTRIAL RADIOGRAPHY FACILITY

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परमाणु ऊर्जा नियामक परिषद, नियामक भवन, अणुशक्तिनगर, मुंबई 400094 (महाराष्ट्र)
Atomic Energy Regulatory Board, Niyamak Bhavan, Anushaktinagar, Mumbai 400094 (Maharashtra)

जारीकर्ता प्राधिकारी Issuing Authority

हस्ताक्षर Signature

प्राधिकारी का नाम Name of the Authority

DR. P. K. DASH SHARMA

पदनाम Designation

Head, RSD

आवेदक का नाम और संचार पता

MR. TANUJ KUMAR SHARMA,

JYOTI NDT INSPECTION CO.,

201A, DDA FLAT GAZIPUR,

DELHI-110096,

DELHI.

* लागू कोड, मानक और गाइड <https://elora.aerb.gov.in/ELORA/PDFs/List%20of%20regulatory%20documents%20-practice%20wise.pdf> पर उपलब्ध है। The applicable Codes, Standards and guides are available at <https://elora.aerb.gov.in/ELORA/PDFs/List%20of%20regulatory%20documents%20-practice%20wise.pdf>

अतिरिक्त आदेश/निर्देश Additional Order/directive:

SSR IV-6

JYOTI NDT INSPECTION CO.

INSTITUTE NAME	JYOTI NDT INSPECTION CO.
ADDRESS	201-A, DDA FLATS,GAZIPUR
CITY	DELHI-110096
STATE	DELHI-110096
EMPLOYER	TANUJ KUMAR SHARMA
DESIGNATION	RSO(PROPRITER)
MOBILE NO.	9971325670
TELE	9599215670
EMAIL	jyotindt2011@gmail.com
FACILITY LICENCE ISSUANCE DATE	19-07-2024
FACILITY LICENCE VALID TILL	19-01-2025
NO. OF RADIOGRAPHERS AVAILABLE WITH THE INSTITUTE	4
NO. OF RSO/SITE INCHARGE(S) AVAILABLE IN THE INSTITUTE	1
NO. OF RADIATION SURVEY METER(S) AVAILABLE IN THE INSTITUTE	6
NO. OF POCKET DOSIMETER(S)/DRD(S)	8
NO. OF APPROVED TRAINEE(S)	

NO. OF TRAINEE(S) WORKING MORE THAN SIX MONTHS

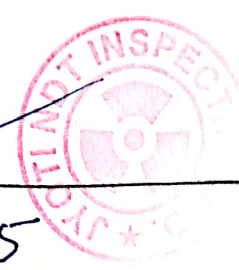
RADIOGRAPHY DEVICE DETAILS

EQUIPMENT ID	MODEL	SERIAL NO.	SOURCE	PRESENT ACTIVITY	PRESENT LUCPTI	NAME OF RADIOGRAPHER	NAME OF RSO
E-IREN-002382	ROLI-3	12165	IR 192	2.8Ci	MANGLA STEEL	RAJEEV KUMAR	T.K SHARMA
E-IREN-04652g	ROLI-3	14249	IR 192	1.8Ci	E&C PROJECTS	GOPAL SHARMA	T.K SHARMA
E-IREN-046452G	DELTA 880	D-14182	IR 192	0.8Ci	E&C PROJECTS	GOPAL SHARMA	T.K SHARMA
E-IREN-048526	DELTA 880	D-16947	IR 192	0.2Ci	MURTHAL TANKS	MD WASIM	T.K SHARMA
E-IRF D-1L15G3	DANG DONG XXQ 2005	90459	X-RAY	200KVA	E&C PROJECTS	GOPAL SHARMA	T.K SHARMA
NO. OF DEF CASES REPORTED IN THE REPORTED PERIOD							
NO. OF UNUSUAL INCIDENTS REPORTED IN THE REPORTING PERIOD	CONTRACT AWARDING	Mobile no. of responsible person of contractor	Email ID of responsible person of contractor				
	MANGLA STEEL	9817577498	accounts@manglasteel.com				
	MURTHAL TANKS	9812003117	info@murthaltanks.com				
	E&C PROJECTS	9818299085	kaushaliway07@gmail.com				

T.K SHARMA (RSO) DATE: 05/02/2025

Tanuj

05/02/25





ELECTRIC & ENGINEERING CO. (I) P. LTD.

CAUTION



IOACTIVE MATERIAL
LOADED

Model : Jyoti NDT
: Delta 880
: D16947
: IX-192
No. : 10151A/89623M
: 37.3 Ci As on Dt. 07/02/25
Supply : 07/02/25
Radiation: 21.6 mR/hr
Index : 03

Source Certificate

Radionuclide: **Ir192**
 SO/ANSI Classification: **97C64515**
 AEA Special Form Reference Number: **USA/0335/S-96**
 Measured Equivalent Activity on **Jan-23-2025**
43.0 Ci 1.6 TBq

Holder/Capsule # **10151P / 89623M**
 Source Model: **A424-9**
 Product Code: **ICUCF040**
 Sales Order: **20597 Electronic&Engeneering**

Source Physical Size:		
	(mm)	(in)
Diameter	2.000	0.079
Length	1.500	0.059
Diagonal	2.500	0.098

Quality Control Tests **Jan-23-2025**
 Wipe Test A: **<0.00045 uCi**
 Vacuum Bubble Test: **Passed**
 Tensile Test: **Passed**
 Wipe Test B: **<0.00045 uCi**

Decay Data:

Technician: 

Activity in Curies						
Date	Date +1	Date +2	Date +3	Date +4	Date +5	Date +6
3.0	42.6	42.2	41.8	41.4	41.0	40.6
0.3	39.9	39.5	39.1	38.8	38.4	38.1
7.7	37.3	37.0	36.7	36.3	36.0	35.6
5.3	35.0	34.6	34.3	34.0	33.7	33.4
3.1	32.7	32.4	32.1	31.8	31.5	31.2
1.0	30.7	30.4	30.1	29.8	29.5	29.3
9.0	28.7	28.4	28.2	27.9	27.7	27.4
7.1	26.9	26.6	26.4	26.1	25.9	25.7
5.4	25.2	24.9	24.7	24.5	24.2	24.0
3.8	23.6	23.4	23.1	22.9	22.7	22.5
2.3	22.1	21.9	21.7	21.5	21.3	21.1
0.9	20.7	20.5	20.3	20.1	19.9	19.7
7.5	19.4	19.2	19.0	18.8	18.6	18.5
5.3	18.1	18.0	17.8	17.6	17.5	17.3
3.1	17.0	16.8	16.7	16.5	16.3	16.2
1.0	15.9	15.7	15.6	15.4	15.3	15.2
0.3	14.9	14.7	14.6	14.5	14.3	14.2
0.1	13.9	13.8	13.7	13.5	13.4	13.3
12.2	13.0	12.9	12.8	12.7	12.6	12.4
12.2	12.2	12.1	12.0	11.9	11.8	11.7
11.4	11.4	11.3	11.2	11.1	11.0	10.9
10.7	10.7	10.6	10.5	10.4	10.3	10.2
10.0	10.0	9.9	9.8	9.7	9.7	9.6
9.4	9.4	9.3	9.2	9.1	9.0	9.0
8.8	8.8	8.7	8.6	8.5	8.5	8.4
8.2	8.2	8.2	8.1	8.0	7.9	7.9
7.7	7.7	7.6	7.6	7.5	7.4	7.4
7.2	7.2	7.2	7.1	7.0	7.0	6.9
6.8	6.8	6.7	6.6	6.6	6.5	6.4
6.3	6.3	6.3	6.2	6.2	6.1	6.0
5.9	5.9	5.9	5.8	5.8	5.7	5.7
5.5	5.5	5.5	5.4	5.4	5.3	5.3
5.2	5.2	5.1	5.1	5.1	5.0	5.0
4.9	4.9	4.8	4.8	4.7	4.7	4.6
4.6	4.6	4.5	4.5	4.4	4.4	4.3
4.3	4.3	4.2	4.2	4.1	4.1	4.1
4.0	4.0	4.0	3.9	3.9	3.8	3.8
3.7	3.7	3.7	3.6	3.6	3.6	3.6
3.5	3.5	3.5	3.4	3.4	3.4	3.3
3.3	3.3	3.2	3.2	3.2	3.2	3.1
3.1	3.1	3.0	3.0	3.0	3.0	2.9
2.9	2.9	2.8	2.8	2.8	2.8	2.7
2.7	2.7	2.7	2.6	2.6	2.6	2.6
2.5	2.5	2.5	2.5	2.5	2.4	2.4
2.4	2.4	2.3	2.3	2.3	2.3	2.3
2.2	2.2	2.2	2.2	2.1	2.1	2.1
2.1	2.1	2.1	2.0	2.0	2.0	2.0
1.9	1.9	1.9	1.9	1.9	1.9	1.8
1.8	1.8	1.8	1.8	1.8	1.7	1.7
1.7	1.7	1.7	1.7	1.7	1.6	1.6
1.6	1.6	1.6	1.6	1.5	1.5	1.5
1.5	1.5	1.5	1.5	1.4	1.4	1.4

Activity in Tera-Becquerels						
Date	Date +1	Date +2	Date +3	Date +4	Date +5	Date +6
Jan-23-25	1.59	1.57	1.56	1.54	1.53	1.51
Jan-30-25	1.49	1.47	1.46	1.44	1.43	1.42
Feb-06-25	1.39	1.38	1.36	1.35	1.34	1.33
Feb-13-25	1.30	1.29	1.28	1.26	1.25	1.24
Feb-20-25	1.22	1.20	1.19	1.18	1.17	1.16
Feb-27-25	1.14	1.13	1.12	1.11	1.10	1.09
Mar-06-25	1.07	1.06	1.05	1.04	1.03	1.02
Mar-13-25	1.00	0.99	0.98	0.97	0.96	0.95
Mar-20-25	0.93	0.93	0.92	0.91	0.90	0.89
Mar-27-25	0.88	0.87	0.86	0.85	0.84	0.83
Apr-03-25	0.82	0.81	0.81	0.80	0.79	0.78
Apr-10-25	0.77	0.76	0.75	0.75	0.74	0.73
Apr-17-25	0.72	0.71	0.71	0.70	0.69	0.68
Apr-24-25	0.67	0.66	0.66	0.65	0.65	0.64
May-01-25	0.63	0.62	0.62	0.61	0.61	0.60
May-08-25	0.59	0.58	0.58	0.57	0.56	0.56
May-15-25	0.55	0.55	0.54	0.54	0.53	0.52
May-22-25	0.52	0.51	0.51	0.50	0.49	0.49
May-29-25	0.48	0.48	0.47	0.47	0.46	0.45
Jun-05-25	0.45	0.45	0.44	0.44	0.44	0.43
Jun-12-25	0.42	0.42	0.41	0.41	0.41	0.40
Jun-19-25	0.39	0.39	0.39	0.38	0.38	0.37
Jun-26-25	0.37	0.37	0.36	0.36	0.35	0.35
Jul-03-25	0.35	0.34	0.34	0.34	0.33	0.33
Jul-10-25	0.32	0.32	0.32	0.31	0.31	0.31
Jul-17-25	0.30	0.30	0.30	0.29	0.29	0.29
Jul-24-25	0.28	0.28	0.28	0.28	0.27	0.27
Jul-31-25	0.27	0.26	0.26	0.26	0.25	0.25
Aug-07-25	0.25	0.25	0.24	0.24	0.24	0.23
Aug-14-25	0.23	0.23	0.23	0.22	0.22	0.22
Aug-21-25	0.22	0.21	0.21	0.21	0.21	0.21
Aug-28-25	0.20	0.20	0.20	0.19	0.19	0.19
Sep-04-25	0.19	0.19	0.18	0.18	0.18	0.18
Sep-11-25	0.18	0.18	0.17	0.17	0.17	0.17
Sep-18-25	0.17	0.17	0.16	0.16	0.16	0.15
Sep-25-25	0.15	0.15	0.15	0.15	0.15	0.15
Oct-02-25	0.14	0.14	0.14	0.14	0.14	0.14
Oct-09-25	0.14	0.13	0.13	0.13	0.13	0.13
Oct-16-25	0.12	0.12	0.12	0.12	0.12	0.12
Oct-23-25	0.12	0.12	0.11	0.11	0.11	0.11
Oct-30-25	0.11	0.11	0.11	0.11	0.11	0.10
Nov-06-25	0.10	0.10	0.10	0.10	0.10	0.09
Nov-13-25	0.09	0.09	0.09	0.09	0.09	0.09
Nov-20-25	0.09	0.09	0.09	0.09	0.09	0.08
Nov-27-25	0.08	0.08	0.08	0.08	0.08	0.08
Dec-04-25	0.08	0.08	0.08	0.08	0.07	0.07
Dec-11-25	0.07	0.07	0.07	0.07	0.07	0.07
Dec-18-25	0.07	0.07	0.07	0.07	0.07	0.06
Dec-25-25	0.06	0.06	0.06	0.06	0.06	0.06
Jan-01-26	0.06	0.06	0.06	0.06	0.06	0.05
Jan-08-26	0.05	0.05	0.05	0.05	0.05	0.05
Jan-15-26	0.05	0.05	0.05	0.05	0.05	0.05

SEALED SOURCES
BRIT MUMBAI



CONSIGNEE: JYOTI NDT INSPECTION CO., NEW DELHI

CAMERA MODEL

ROLI-3

CAMERA NUMBER

12165

ISOTOPE

Ir-192

ORDER ID

2506530

CONSIGNMENT NUMBER

260094

CONSIGNMENT DATE

25-Apr-2025

ACTIVITY (Ci) ON CONSIGNMENT DATE

19.6

CURRENT MEASUREMENT DATE

24-Apr-2025

PENCIL NUMBER

ROLI-25764

ACTIVE SOURCE HEIGHT(mm)

0.6

Ultra-Tech Laboratories Pvt. Ltd.

Accredited by
BARC -Bhabha Atomic Research Centre, Govt. of India
Cloth Market, Kumbhari (Bhilai-Raipur N H-6), Dist. Durg (C.G.) 490 042

TLD MONITORING SERVICE - DOSE REPORT

Institution Number 011020
Institution Name HEAD
JYOTI NDT INSPECTION COMPANY
56-B DDA FLATS
GAZIPUR
DELHI

Service Frequency Monthly
Service Period Mar-2025
Report Date 08-May-2025

Name	Worn Possession C/W	Whole Body Dose(C) / Wrist Dose (W) (mSv)													Skin Dose (C) (mSv)	
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total	Service Period	Total
AL DISPATCH														2.18	1.02	2.18
SHRI TANUJ KUMAR SHARMA	C	0.00	1.16	1.02										1.42		
SHRI TANUJ KUMAR SHARMA	W	0.00	1.42	0.00										2.63	0.00	1.35
SHRI GAUTAM RAVI KUMAR	C	0.37	1.35	0.91										1.04		
SHRI GAUTAM RAVI KUMAR	W	0.00	1.04	0.00										2.54	0.00	1.29
SHRI RAJEEV KUMAR	C	0.42	1.29	0.83										1.19		
SHRI RAJEEV KUMAR	W	0.00	1.19	0.00										2.18	0.00	1.12
SHRI GOPAL SHARMA	C	0.41	1.12	0.65										1.10		
SHRI GOPAL SHARMA	W	0.00	1.10	0.00										2.17	0.00	1.03
MD WASIM AKHTAR	C	0.43	1.03	0.71										1.16		
MD WASIM AKHTAR	W	0.00	1.16	0.00										0.00	0.00	0.00
MS GARIMA SHARMA	C	0.00	0.00	0.00										0.00		
MS GARIMA SHARMA	W	0.00	0.00	0.00										39		
Cards Dispatched		13	13	13										39		
Cards Received		13	13	13												

Note: This report has been prepared on the basis of cards received before 23-Apr-2025

1	When more than one Card is used, dose is added	2	Doses reported only for radiation worker registered with NODRS
3	Whole body dose, in general, reflects the photon component recorded by the Chest Badge	4	Wrist dose and skin dose include both photon and beta components recorded by the Wrist Badge and Chest Badge respectively
5	Dose below Recording level is reported as zero	6	Recording levels: Photon (> ~ 40 keV) = 0.1mSv, photon (< 40 keV) = 0.1mSv, beta = 1 mSv, for whole body dose and Wrist dose for all photon and beta is Reporting Level 1.00mSv
7	Investigation levels in a single monitoring period: whole body dose = 10 mSv, skin dose = 250 mSv, Wrist dose = 250 mSv	8	*Indicates dose under investigation by AERB. Such doses are not added in the total dose.
9	Annual effective dose in any calendar year shall not exceed 30 msv	10	Cumulative effective dose limit for the sliding 5 year block (current year + previous four year) is less than 100 mSv.)
11	*** - 'OER - OVER EXPOSURE	12	'PD' Person /Dosimeter Deleted
13	'DD' Dosimeter Damaged	14	'UP' Under Process
15	'NU' Unused Cards	16	'L' Lost Cards
17	'NR' Not Returned	18	'ND' Not Delivered
19	'-' TLD Not Issued	20	'LR' Late Receipt

Prepared By
Mr. Vinod Kushwaha
Asst. SSO

Checked By
Mrs Sarita Soni
SSO

Approved By
Mr. B.S.Chandel
SSO/OIC



NABL Accredited Calibration Laboratory
AERB Recognised Calibration Laboratory
In accordance with the standard ISO/IEC 17025:2017
(Certificate No. CC-1027 dt. 21.04.2023 valid till 20.04.2025)



NABL Certificate No.: CC-1027

Calibration Certificate

Cert. No.: C011736/2025 Dt. : 08/04/2025

Instrument Submitted by : Jyoti NDT Inspection Co., Ghazipur, Delhi.
Instrument Type : Pulsecho Survey Meter
Instrument Model No. : Minirad-LED
Instrument Serial No. : R-0624
Instrument Submitted on : 08/04/2025
Instrument Calibrated on : 08/04/2025
Next Calibration Due : 07/04/2027

Calibration Conditions:

1. Instrument was calibrated under standard calibration conditions in broad side on geometry using BARC standard having traceability No-BARC/RP&AD/RSS/CAL/C-97/2014 dt. 12.05.2014
2. A ⁶⁰Co (Calibration energy 1.25MeV) source in a shielded enclosure with a collimator was used
3. Various combination of lead attenuators were used to attain various standard radiation field values at the calibration point in different ranges of the instrument
4. A Monthly Correction of Decay is being applied on ⁶⁰Co Check Source

Result:

Instrument response in all ranges was found to be within acceptable limits, responding to the Radiation field.

Standard Reference value was measured with the help of a 100cc reference graphite ionisation chamber in conjunction with an electrometer, traceable to the National Standard, Radiation Standards Section, Bhabha Atomic Research Centre, Mumbai.

Measurement Uncertainty: $\pm 10\%$, K=2, at 95.45% level of confidence.

Calibrated by

Checked & Approved by

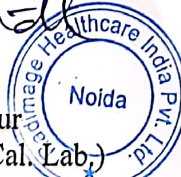
E-Certificate

Bantoo

Bantoo Kumar
Engineer & RSO (Cal. Lab.)

Arun Mathur

Arun Mathur
Director & RSO (Cal. Lab.)



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NABL Accredited Calibration Laboratory

AERB Recognised Calibration Laboratory

In accordance with the standard ISO/IEC 17025:2017
(Certificate No. CC-1027 dt. 21.04.2023 valid till 20.04.2025)



NABL Certificate No.: CC-1027

Calibration Certificate

Cert. No.: C011737/2025 Dt. : 08/04/2025

Instrument Submitted by : Jyoti NDT Inspection Co., Ghazipur, Delhi.
Instrument Type : EECIPL Survey Meter
Instrument Model No. : EECIRAD-5S
Instrument Serial No. : AD521KS
Instrument Submitted on : 08/04/2025
Instrument Calibrated on : 08/04/2025
Next Calibration Due : 07/04/2027

Calibration Conditions:

1. Instrument was calibrated under standard calibration conditions in broad side on geometry using BARC standard having traceability No-BARC/RP&AD/RSS/CAL/C-97/2014 dt. 12.05.2014
2. A ^{60}Co (Calibration energy 1.25MeV) source in a shielded enclosure with a collimator was used
3. Various combination of lead attenuators were used to attain various standard radiation field values at the calibration point in different ranges of the instrument
4. A Monthly Correction of Decay is being applied on ^{60}Co Check Source

Result:

Instrument response in all ranges was found to be within acceptable limits, responding to the Radiation field.

Standard Reference value was measured with the help of a 100cc reference graphite ionisation chamber in conjunction with an electrometer, traceable to the National Standard, Radiation Standards Section, Bhabha Atomic Research Centre, Mumbai.

Measurement Uncertainty: $\pm 10\%$, $K=2$, at 95.45% level of confidence.

Calibrated by

Checked & Approved by

E-Certificate

Bantoo

Bantoo Kumar
Engineer & RSO (Cal. Lab.)

A. Mathur
Arun Mathur
Director & RSO (Cal. Lab.)



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NABL Accredited Calibration Laboratory

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In accordance with the standard ISO/IEC 17025:2017
(Certificate No. CC-1027 dt. 21.04.2023 valid till 20.04.2025)



NABL Certificate No.: CC-1027

Calibration Certificate

Cert. No.: C011738/2025 Dt. : 08/04/2025

Instrument Submitted by : Jyoti NDT Inspection Co., Ghazipur, Delhi.
Instrument Type : Pulsecho Pocket Dosimeter
Instrument Model No. : Dosirad
Instrument Serial No. : S-1308
Instrument Submitted on : 08/04/2025
Instrument Calibrated on : 08/04/2025
Next Calibration Due : 07/04/2027

Calibration Conditions:

1. Instrument was calibrated under standard calibration conditions in broad side on geometry using BARC standard having traceability No-BARC/RP&AD/RSS/CAL/C-97/2014 dt. 12.05.2014
2. A ⁶⁰Co (Calibration energy 1.25MeV) source in a shielded enclosure with a collimator was used
3. Various combination of lead attenuators were used to attain various standard radiation field values at the calibration point in different ranges of the instrument
4. A Monthly Correction of Decay is being applied on ⁶⁰Co Check Source

Result:

Instrument response in all ranges was found to be within acceptable limits, responding to the Radiation field.

Standard Reference value was measured with the help of a 100cc reference graphite ionisation chamber in conjunction with an electrometer, traceable to the National Standard, Radiation Standards Section, Bhabha Atomic Research Centre, Mumbai.

Measurement Uncertainty: $\pm 10\%$, K=2, at 95.45% level of confidence.

Calibrated by

Checked & Approved by

E-Certificate

Bantoo

Bantoo Kumar
Engineer & RSO (Cal. Lab.)

Arun Mathur

Arun Mathur
Director & RSO (Cal. Lab.)



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NABL Accredited Calibration Laboratory
AERB Recognised Calibration Laboratory
In accordance with the standard ISO/IEC 17025:2017
(Certificate No. CC-1027 dt. 21.04.2023 valid till 20.04.2025)



NABL Certificate No.: CC-1027

Calibration Certificate

Cert. No.: C011739/2025 Dt. : 08/04/2025

Instrument Submitted by : Jyoti NDT Inspection Co., Ghazipur, Delhi.

Instrument Type : Arrow Tech Pocket Dosimeter

Instrument Model No. : W-138

Instrument Serial No. : SF-342185

Instrument Submitted on : 08/04/2025

Instrument Calibrated on : 08/04/2025

Next Calibration Due : 07/04/2027

Calibration Conditions:

1. Instrument was calibrated under standard calibration conditions in broad side on geometry using BARC standard having traceability No-BARC/RP&AD/RSS/CAL/C-97/2014 dt. 12.05.2014
2. A ⁶⁰Co (Calibration energy 1.25MeV) source in a shielded enclosure with a collimator was used
3. Various combination of lead attenuators were used to attain various standard radiation field values at the calibration point in different ranges of the instrument
4. A Monthly Correction of Decay is being applied on ⁶⁰Co Check Source

Result:

Instrument response in all ranges was found to be within acceptable limits, responding to the Radiation field.

Standard Reference value was measured with the help of a 100cc reference graphite ionisation chamber in conjunction with an electrometer, traceable to the National Standard, Radiation Standards Section, Bhabha Atomic Research Centre, Mumbai.

Measurement Uncertainty: $\pm 10\%$, K=2, at 95.45% level of confidence.

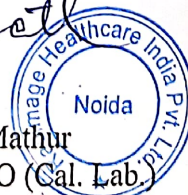
Calibrated by

Checked & Approved by

E-Certificate

Bantoo

A. Mathur



Bantoo Kumar
Engineer & RSO (Cal. Lab.)

Arun Mathur
Director & RSO (Cal. Lab.)

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Value Care Solution

VAISHNO CALIBRATION SERVICES

CALIBRATION CERTIFICATE		Certificate No.	VCS/24/059
OF		Date Of Calibration	31.07.2024
Density Meter		Next Due Date	30.07.2025
		Page No.	1 of 1.
CALIBRATED FOR : M/s. JYOTI NIT INSPECTION CO.			
Gazipur, Delhi.			
IDENTIFICATION OF UUC*			
Range	0 - 3.00 d	Visual Inspection	OK
Resolution / L.C	0.01 d.	Ref. Standard	VCS/WI/241
Make	FEEDL	Environmental Condition	
St. No.	3E/CD 1/M-110	Cal. Performed At	Lab.
Id Mark		Temperature	25 $\pm$ 4 °C
Location		Humidity	50 $\pm$ 20 % rh
Standard & Major Equipment Used For Calibration (Traceable To National Standard)			
Equipment	Id. Mark / St. No.	Calibrated By	Calibration Cert. No.
Standard Density	VCS/DS/01	Accurate	AI/T/DS-521
Strip	St. No. Q-67		Cal. Valid Upto
			21.06.2025

CALIBRATION RESULT

STD. Value (d)	UUC* Value (d)	Error (d)
0.87	0.87	0.00
1.04	1.04	0.00
1.24	1.24	0.00
1.48	1.49	0.01
1.79	1.80	0.01
2.24	2.23	-0.01
2.55	2.56	0.01
3.45	3.43	-0.02

Uncertainty of Measurement : $\pm 1\%$. (The reported uncertainty is at coverage factor k=2, which correspond to coverage possibility of approximately 95 % of a normal distribution.)

* UUC : Unit Under Calibration.

NOTES :

- 1. This certificate refers only to the particular item submitted for calibration.
- 2. Results reported are valid at the time & under stated condition of measurement.
- 3. This certificate shall not be reproduced, except in full without the written permission of Quality Manager.

Form No. VCS/24/13 Rev 40 Rev. Date:16.04.2015

Vinit Sharma
(Quality Manager)



Government of India
BHABHA ATOMIC RESEARCH CENTRE
MUMBAI-400 094

**TRAINING COURSE ON
RADIOGRAPHY TESTING LEVEL - 1**

This is to certify that Shri *TANUJ KUMAR SHARMA*
has successfully undergone the Training Course on Radiography Testing
Level-1, organised by *Institute of Quality Management* Mumbai,
during 02 - 21, March 2009.

The training course was conducted in accordance with the syllabi prescribed
in Bureau of Indian Standards IS - 13805 - 1993 and approved by Bhabha
Atomic Research Centre, Mumbai.

The candidate was examined during 18 - 21, March 2009 as per
ISO 9712 by a board constituted by Bhabha Atomic Research Centre and
he has passed the examination with grades shown overleaf.


H. S. Kushwaha
DIRECTOR

Date : 21 March, 2009.

Health, Safety and Environment Group
Bhabha Atomic Research Centre, Mumbai.

Certificate Number : **RT-1/ 56** / 2009 / 1353

Minimum Passing Mark%	Marks Obtained %
--------------------------	---------------------

1. Written

Radiography General	:	70 %	<u>88.0</u> %
Radiation Safety	:	70 %	<u>88.0</u> %
Radiography Specific	:	70 %	<u>90.0</u> %



2. Practical

Radiography Specific	:	70 %	<u>83.0</u> %
Radiation Safety	:	70 %	<u>82.0</u> %

Composite Grade Obtained	80 %	<u>85.83</u> %
-----------------------------	------	----------------


Convenor, Board of Examiners

Passing Criteria : 70 per cent in each subject and
80 per cent in Composite Grade

Ultra-Tech Laboratories Pvt. Ltd.

Accredited by

BARC-Bhabha Atomic Research Centre, Govt. of India
Cloth Market, Kumbhari (Bhilai-Raipur N.H-6), Dist. Durg (C.G.) 490 042

TLD MONITORING SERVICE - DOSE REPORT

Institution Number 011020
Institution Name HEAD
JYOTI NDT INSPECTION COMPANY
56-B DDA FLATS
GAZIPUR
DELHI

Service Frequency Monthly
Service Period Mar-2025
Report Date 08-May-2025

Pers No	Name	Worn Possit ion CW	Whole Body Dose(C) / Wrist Dose (W) (mSv)													Skin Dose (C) (mSv)	
			J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	Total	Service Period	Total

NORMAL DISPATCH

0002	SHRI TANUJ KUMAR SHARMA	C	0.00	1.16	1.02										2.18	1.02	2.18
0002	SHRI TANUJ KUMAR SHARMA	W	0.00	1.42	0.00										1.42		
0006	SHRI GAUTAM RAVI KUMAR	C	0.37	1.35	0.91										2.63	0.00	1.05
0006	SHRI GAUTAM RAVI KUMAR	W	0.00	1.04	0.00										1.04		
0007	SHRI RAJEEV KUMAR	C	0.42	1.29	0.83										2.54	0.00	1.29
0007	SHRI RAJEEV KUMAR	W	0.00	1.19	0.00										1.19		
0014	SHRI GOPAL SHARMA	C	0.41	1.12	0.65										2.18	0.00	1.12
0014	SHRI GOPAL SHARMA	W	0.00	1.10	0.00										1.10		
0018	MD WASIM AKHTAR	C	0.43	1.03	0.71										2.17	0.00	1.03
0018	MD WASIM AKHTAR	W	0.00	1.16	0.00										1.16		
0019	MS GARIMA SHARMA	C	0.00	0.00	0.00										0.00	0.00	0.00
0019	MS GARIMA SHARMA	W	0.00	0.00	0.00										0.00		
No of Cards Dispatched			13	13	13										39		
No of Cards Received			13	13	13										39		

Note: This report has been prepared on the basis of cards received before 23-Apr-2025

1	When more than one Card is used, dose is added	2	Doses reported only for radiation worker registered with NODRS
3	Whole body dose, in general, reflects the photon component recorded by the Chest Badge	4	Wrist dose and skin dose include both photon and beta components recorded by the Wrist Badge and Chest Badge respectively
5	Dose below Recording level is reported as zero	6	Recording levels: Photon (> 40 keV) = 0.1mSv, photon (< 40 keV) = 0.1mSv, beta = 1 mSv, for whole body dose and Wrist dose for all photon and beta is Reporting Level 1.00mSv
7	Investigation levels in a single monitoring period: whole body dose = 10 mSv, skin dose = 250 mSv, Wrist dose = 250 mSv	8	*Indicates dose under investigation by AERB. Such doses are not added in the total dose.
9	Annual effective dose in any calendar year shall not exceed 30 msv	10	Cumulative effective dose limit for the sliding 5 year block (current year + previous four year) is less than 100 mSv.)
11	*** - 'OER - OVER EXPOSURE	12	
13	'DD' Dosimeter Damaged	14	'PD' Person / Dosimeter Deleted
15	'NU' Unused Cards	16	'UP' Under Process
17	'NR' Not Returned	18	'L' Lost Cards
19	'V' TLD Not Issued	20	'ND' Not Delivered
			'LR' Late Receipt

Prepared By
Mr. Vinod Kushwaha
Asst. SSO

Checked By
Mrs Sarita Soni
SSO

Approved By
Mr. B.S.Chandel
SSO/OIC



(R.S.MAHTO)

Annexure -3

RADIOGRAPHY PROCEDURE FOR 2 " DIA

RADIOGRAPHY SERVICE	: UNIQUE NDT SERVICES
SUBJECT	: Radiography
FABRICATOR	:
JOB DESCRIPTION	: PIPE LINE
MATERIAL	: MS
PERSONNEL QUALIFICATION	: SNT-TC-1A(ASNT LEVEL-II) / BARC LEVEL-II
EQUIPMENT & ISOTOPE	: IR-192, ROLL-1, TECHOPS
THICKNESS OF MATERIAL	: UP TO 20 MM.
FILM USED	: D-7 Kodak, Agfa
LEAD SCREEN	: FRONT.2 MM
	: BACK .1 MM
ELLIPTICAL SHOTS	: 0 Deg AND 90Deg (A &B)
SIGMENTS	: 2 shots,
DENSITY	: 1.5 TO 3 %
MARKER	: FILM SIDE
ARRANGEMENT FOR SHIELDING	: NIL
SOURCE TO FILM DISTANCE	: 8 TO 12" SOURCE ANGLE 10 TO 12 DEG FOR ELLIPTICAL SHOTS
PENTRAMETER	: WIRE TYPE , DIN 10 , ISO 16
SOURCE SIZE	: 1.8 MM X 1.6 MM X .2 MM THICK
RADIOGRAPHIC TECHNIQUE	: DWDI
PLACEMENT OF PENTRAMETER:	: FILMSIDE
EXPOSURE TIME	: AS PER REQUIREMENT (FF x 2 ^{thickness/hbl} x (SFD) ² x 60) / (Ci x RHMx100 ²)
FILM PROCESSING	: MANUAL INSTAGE
	(1) Development : 3- 5 mts at 20 ⁰ C temperature
	(2) Stop Bath : 30 second (2 % Acitic Acid)
	(3) Fixing : 10 minutes
	(4) Washing : Running water 30 minutes
	(7) Drying : Normal
ACCEPTANCE CODE/ PROCEDURE	: AS PER ASME SECTION VIII Div. 1
RADIOGRAPHY AGENCY	
CONTRACTOR	



(R.S.MAHTO)

Annexure -4

RADIOGRAPHY PROCEDURE FOR 1", 3/4" DIA

RADIOGRAPHY SERVICE	: UNIQUE NDT SERVICES
SUBJECT	: Radiography
FABRICATOR	:
JOB DESCRIPTION	: PIPE LINE
MATERIAL	: MS
PERSONNEL QUALIFICATION	: SNT-TC-1A(ASNT LEVEL-II) / BARC LEVEL-II
EQUIPMENT & ISOTOPE	: IR-192, ROLL-1, TECHOPS
THICKNESS OF MATERIAL	: UP TO 20 MM.
FILM USED	: D-7 Kodak, Agfa
FILM SIZE	: 3X6"
LEAD SCREEN	: FRONT .2 MM
	: BACK .1 MM
SIGMENTS	: 3 shots, segment ABC
DENSITY	: 1.5 TO 3 %
MARKER	: FILM SIDE
ARRANGEMENT FOR SHIELDING	: NIL
SOURCE TO FILM DISTANCE	: 6 TO 8 "
PENTRAMETER	: WIRE TYPE , DIN 10 , ISO 16
SOURCE SIZE	: 1.8 MM X 1.6 MM X .2 MM THICK
RADIOGRAPHIC TECHNIQUE	: DWSI
PLACEMENT OF PENTRAMETER:	: FILMSIDE
EXPOSURE TIME	: AS PER REQUIREMENT ($FF \times 2^{\text{thickness hbl}} \times (SFD)^2 \times 60$) / ($Ci \times RHM \times 100^2$)
FILM PROCESSING	: MANUAL INSTAGE
	(1) Development : 3- 5 mts at 20° C temperature
	(2) Stop Bath : 30 second (2 % Acetic Acid)
	(3) Fixing : 10 minutes
	(4) Washing : Running water 30 minutes
	(8) Drying : Normal
ACCEPTANCE CODE/ PROCEDURE	: AS PER ASME SECTION VIII Div. 1

RADIOGRAPHY AGENCY

CONTRACTOR

(R.S.MAHTO)



RADIOGRAPHY PROCEDURE FOR 2,3,4 INCH DIA

RADIOGRAPHY SERVICE	: UNIQUE NDT SERVICES
SUBJECT	: Radiography
FABRICATOR	: M/s Singh Engineering Works
JOB DESCRIPTION	: PIPE LINE
MATERIAL	: CS
PERSONNEL QUALIFICATION	: SNT-TC-1A (ASNT LEVEL-II) / BARC LEVEL-II
EQUIPMENT & ISOTOPE	: IR-192, ROLL-1, TECHOPS
THICKNESS OF MATERIAL	: UP TO 12 MM.
FILM USED	: D-7 Kodak, Lazer
LEAD SCREEN	: FRONT.2 MM : BACK .1 MM
SIGMENTS	: 2"dia - 2 SHOTS, 0 Deg. & 90 Deg. 3" dia - Film size 3" x 6" 4" dia - Film Size 3" x 8"
DENSITY	: 1.5 TO 4 %
SENSITIVITY	: 2%
MARKER	: FILM SIDE
ARRANGEMENT FOR SHIELDING	: NIL
SOURCE TO FILM DISTANCE	: 2" dia - SFD-10" 3" dia - SFD-3" 4" dia - SFD- 4"
PENTRAMETER	: WIRE TYPE , DIN 10, ISO 16 (ASME-1A &1B)

SOURCE SIZE

: 1.8 MM X 1.6 MM X .2 MM THICK



RADIOGRAPHIC TECHNIQUE
PLACEMENT OF PENTRAMETER

: DWDI/DWSI
: FILMSIDE

EXPOSURE TIME

: AS PER REQUIREMENT
 $(FF \times 2^{\text{thickness/HVL}} \times (SFD)^2 \times 60)$

FILM PROCESSING

$(Ci \times RHM \times 100^2)$
: MANUAL INSTAGE

- (1) Development : 3- 5 mite at 20⁰ C temperature
(2) Stop Bath : 30 second (2 % Acetic Acid)
(3) Fixing : 10 minutes
(4) Washing : Running water 30 minutes
(5)Drying : Normal

ACCEPTANCE CODE/ PROCEDURE

: ASME-UW-51&52/API-1104

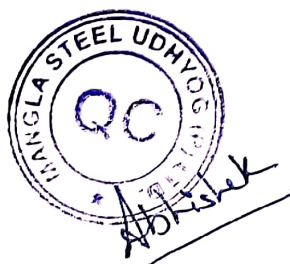
RADIOGRAPHY AGENCY

CONTRACTOR

For UNIQUE NDT SERVICES

(R.S.MAHTO)

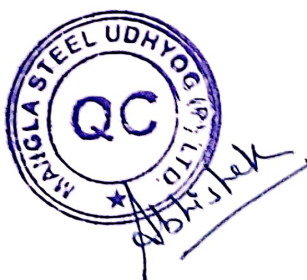
Date: 16.04.2009



RADIOGRAPHY PROCEDURE FOR 2,4,6 " DIA

Date:12.1.2012

RADIOGRAPHY SERVICE	
SUBJECT	: JYOTI NDT INSPECTION CO.
FABRICATOR	: Radiography
JOB DESCRIPTION	:
MATERIAL	: PIPE LINE
PERSONNEL QUALIFICATION	: MS
EQUIPMENT & ISOTOPE	: SNT-TC-1A (ASNT LEVEL-II) /
THICKNESS OF MATERIAL	BARC LEVEL-II
FILM USED	: IR-192, ROLL-1, Delta
LEAD SCREEN	: UP TO 12 MM.
	: D-7 & D-4 Kodak, Agfa
	: FRONT.2 MM
	: BACK .1 MM
SIGMENTS	: 2", 2 shots, 0 Deg, & 90 Deg
	3" dia film size 3x6"
	4" dia film 3x8"
DENSITY	: 1.5 TO 3 %
MARKER	: FILM SIDE
ARRANGEMENT FOR SHIELDING	: NIL
SOURCE TO FILM DISTANCE	: 4" DIA SFD 4" / 6" DIA SFD 6" /
	8" DIA SFD 8"
PENTRAMETER	: WIRE TYPE , DIN 10 - ISO 16
SOURCE SIZE	: 1.8 MM X 1.6 MM X .2 MM
THICK	



RADIOGRAPHIC TECHNIQUE

PLACEMENT OF PENTRAMETER:

EXPOSURE TIME

: DWDI/DWSI

: FILMSIDE

: AS PER REQUIREMENT

$(FF \times 2^{\text{thickness/HVL}} \times (SFD)^2 \times 60)$

$(Ci \times RHM \times 100^2)$

: MANUAL INSTAGE

FILM PROCESSING

C temperature

Acitic Acid)

(1) Development : 3- 5 mts at 20⁰

(2) Stop Bath : 30 second (2 %

(3) Fixing : 10 minutes

(4) Washing : Running water
30 minutes

(5)Drying : Normal

: API 1104 PIPE LINE

ACCEPTANCE CODE/ PROCEDURE

RADIOGRAPHY AGENCY
CONTRACTOR

(T.K. SHARMA)

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