




COMPANY STANDARD INSTRUCTION

PIPELINE CUTTING LOCATION IDENTIFICATION


Instruction Number: IN-250-HSE-24

Document Classification: Internal

Approved by	Name	Vincent Raymond Magne	
	Position	Chief Operations Officer	
	Date	11 / 12 / 2019	


Rev.	Date	Prepared by	Reviewed by					
00	21/10/2019	 Snr. Safety Officer & Safety Engineer	 HSSE Support Manager	 HSSE Group Manager	 MGM (SC/PE) & Vinyl	 Engineering Group Manager	 Technical Group Manager	 Chief HSSE Officer

Saya

	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 2 of 16


Revision / Modification History:

Rev #	Date	Section No.	Reason for revision / modification
0	20/10/19	All	New Instruction.

	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 3 of 16

Contents

1. OBJECTIVE	4
2. SCOPE	4
3. INSTRUCTION SUMMARY	4
4. ABBREVIATIONS / DEFINITIONS	5
5. DOCUMENT REFERENCES	6
6. RESPONSIBILITIES	6
7. INSTRUCTION METHOD	8
7.1 STEP 1 – PREPARATION	8
7.2 STEP 2 – MARKING AND TAGGING	8
7.3 STEP 3 – JOB EXECUTION	8
7.4 STEP 4 - JOB COMPLETION AND CLOSING OF THE WORK PERMIT	9
7.5 ADDITIONAL PRECAUTION	9
8. RECORDS	10
9. APPENDIX	11
9.1 PIPE CUTTING LOCATION IDENTIFICATION PROCESS FLOW	11
9.2 PIPE CUTTING REQUEST FORM	12
9.3 SAMPLE (FILLED) FORM & ASSOCIATED DOCUMENTS	13
9.4 SPECIMEN OF IDENTIFICATION TAG	15

	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 4 of 16

1. OBJECTIVE

To have a systematic approach in order to positively identify specific location on a pipeline for cutting.

To have a clear communication system between production and execution teams to achieve a safe and correct pipe line cutting in the existing plant.

2. SCOPE




To outline the guidelines to identify the correct location for:

- Pipeline Cutting (Cold & Hot)
- Hot Tapping

This Instruction is not covering the process of preparation by production (Decommissioning & positive isolation activities) or the process of job execution by maintenance (Hot work, cold work, hot tapping etc.)




3. INSTRUCTION SUMMARY

This Instruction describes the methodology to identify specific location to execute any cutting activity on existing pipeline in a safe manner so that wrong pipeline cut or cut at the wrong locations type of incidents can be avoided. To mark specific locations, marking and tagging will be done. Specific roles and responsibilities of different disciplines /designations to carry out various activities to meet the requirement are mentioned in the Instruction.

  	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 5 of 16

4. ABBREVIATIONS / DEFINITIONS

#	Abbreviation / Key word	Definition summary
1	LOPC – Loss of Primary Containment	An unplanned or uncontrolled release of any material from primary containment, including non-toxic and non-flammable materials (e.g. steam, hot water, nitrogen, compressed CO ₂ , or compressed air)
2	Cold Cutting	Cutting a pipeline with non-sparking tool.
3	Hot Cutting	Cutting a pipeline with heat or spark generating tool.
4	Hot Tapping	The technique of attaching a mechanical or welded branch fitting to piping or equipment in service, and creating an opening in that piping or equipment by drilling or cutting a portion of the piping or equipment within the attached fitting, while the pipeline or vessel is operating under pressure or at less than atmospheric pressure, or out of service piping/vessel which cannot be cleared to 0% LEL.
5	Execution Engineer	QAPCO engineer from execution team accountable to plan and execute the job
6	Lead Executor	Lead executor as mentioned in permit to work procedure
7	Permit Issuer	Permit issuer as mentioned in permit to work procedure
8	Execution Supervisor	Execution supervisor as mentioned in permit to work procedure
9	Pipeline cutting Request Form	A form which contains all required information for the pipeline cutting activity.
10	Pipeline cutting Identification Tag	A “Purple color Tag” (Annexure 9.4) used to identify and mark the pipeline cutting location before execution of work
11	Pipeline cutting Identification Tape	“Pink orange stripped color sticky tape” which shall be fixed on the pipeline to mark the pipeline cutting location point before execution of work Different tape color can be approved by Safety Manager due to any issue. Uniform implementation across QAPCO shall be ensured.
12	Pipeline	All kind of piping including those which are coming from other companies to QAPCO
13	Pipeline for demolition	Line for demolition is a line which is going to be removed totally from plant between two positively isolated points or downstream of an isolation point that has been decommissioned.
13	Critical cut / Cutting location	First Cut is always critical. Following criteria might be considered for identifying other critical cuts : <ul style="list-style-type: none"> • Chemical being handled • Nearby pipelines handling hazardous chemicals

  	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 6 of 16




	<ul style="list-style-type: none"> • Possibility of chemical pockets at particular cut location • Complexity of area • Material of construction of a pipeline / equipment <p>Any hot tapping on hazardous chemical pipeline or on a line on pipe rack with hazardous chemical pipeline available nearby etc.,</p>
--	--

5. DOCUMENT REFERENCES


#	Document ID	Document name	Summary of dependency or use
1	PR-PSS-114	Permit To Work Procedure	Gives connection to permit procedure and practice to perform pipeline cutting
2	PR-251-SF-17	Procedure for Positive Isolation for Piping and Equipment	Communicate the blinding requirement while performing pipeline cutting as required for a specific job.
3	PR-PSS-61	MOC Procedure	MOC requiring pipeline cutting or hot tapping shall follow this procedure requirement for specific location identification.

6. RESPONSIBILITIES

#	Job Title	Responsibilities
1	Execution Engineer	<ul style="list-style-type: none"> • Shall ensure that the pipeline cutting instruction is followed in true letter and spirit for the job. • Shall prepare pipeline cutting request form and submit the form (including marked P&ID and ISOMETRIC) to Production engineer / Supervisor for identification of critical cuts and approval well in advance. • Shall provide pipeline cutting identification tag and marking tool to lead executor.
2	Production Engineer/ Supervisor	<ul style="list-style-type: none"> • Identify critical cuts on the isometric drawing and on the pipeline cutting request form. • Approve and sign the pipeline cutting request form. • Sign the pipeline cutting identification tag with permanent marker • Give advance information about approved pipeline cutting jobs to permit issuer. • Shall verify the marking/tagging and sign the pipeline cutting request form.

  	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 7 of 16

3	Shift Supervisor / Permit issuer	<ul style="list-style-type: none"> • Shall ensure that the copy of the approved Pipeline cutting request form (including marked P&ID and ISOMETRIC) is attached with the relevant work permits. • Shall ensure that the pipeline required to be cut is properly decommissioned, marked and tagged and can be cut safely. • Shall allocate an area operator for the job. • Take extra precautions for all the critical cuts of the pipe line (Presence of operator if he deems it necessary). • Shall ensure that the concerned operator knows the pipeline cutting location.
4	Lead Executer / Permit Receiver	<ul style="list-style-type: none"> • Shall prepare the work permit and clearly mention the Pipe Cutting line number and description. • Shall mark and tag the cutting locations on the pipes prior to the job execution (preferably, at least one week before). • Shall attach the approved Pipeline cutting request form (including marked P&ID and ISOMETRIC) and attach it to the work permit. • Shall install pipeline cutting identification tag and mark the cutting location with tape in presence of area operator. • Shall do the critical cuts in presence of area operator.
5	Area Operator	<ul style="list-style-type: none"> • Shall verify that pipeline cutting request form details matches with the one in work permit. • While identifying and marking & tagging the pipeline cutting location, area operator shall be present and ensure the location is correct. • Be present at location and take extra precautions before and during the first or/and critical cuts of the pipeline.
6	HSE	<ul style="list-style-type: none"> • Provide training and create awareness for the Instruction implementation during normal operation as well as during TA/GSD. • Safety to regularly audit the activity and share lesson learned for improvement
7	Warehouse	<ul style="list-style-type: none"> • To maintain the inventory and issue tags/tape as required.

	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 8 of 16

7. INSTRUCTION METHOD

7.1 STEP 1 – PREPARATION


- Execution Engineer / Supervisor shall prepare Pipe cutting request form (marked P&ID and ISOMETRIC) and submit to Production engineer / Supervisor for identification of critical cuts and approval well in advance.
- Production Engineer / Supervisor shall approve the request form.
- Lead executor shall prepare and apply two work permits.
 - One permit is for preparation job: tagging and marking in field
 - Second work permit is for pipeline cutting execution job.
- Permit issuer will issue only the preparation (Tagging and marking) work permit (cold work permit).

7.2 STEP 2 – MARKING AND TAGGING

- Lead executor will install the identification tag and tape for marking the cutting location according to pipeline cutting request form in presence of area operator.
- Area operator shall ensure that the tagging is in correct location as per the P&ID and ISOMETRIC.
- Area operator with lead executor will sign on the pipe cutting request form.
- Production Engineer / Supervisor shall check & confirm that the pipeline is marked / tagged correctly by physically verifying the location in the area and sign the pipeline cutting request form.

7.3 STEP 3 – JOB EXECUTION

- Permit Issuer will issue the pipeline cutting execution work permit only after conforming that pipeline cutting location has been identified and marked.
- Permit issuer will ensure that the pipeline cutting request form has been signed by all concerned persons and cold work permit for preparation work is closed.
- Permit issuer shall attach the copy of the completed pipeline cutting request form, marked PID & ISOMETRICS with the permit for job execution.
- Lead Executor shall perform the critical cuts in the presence of area operator.


	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 9 of 16

7.4 STEP 4 - JOB COMPLETION AND CLOSING OF THE WORK PERMIT

- Remove the tags and marking tape from the line and handover to area operator.

7.5 ADDITIONAL PRECAUTION

- In case of any additional or change or modification in the cutting location:
 - It shall be requested by execution engineer and shall be approved by production engineer / supervisor.
 - It shall be updated in the pipeline cutting request form.
 - It shall be informed to permit issuer.
 - Marking to be done again for the new cutting location by following the same instruction

	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 10 of 16

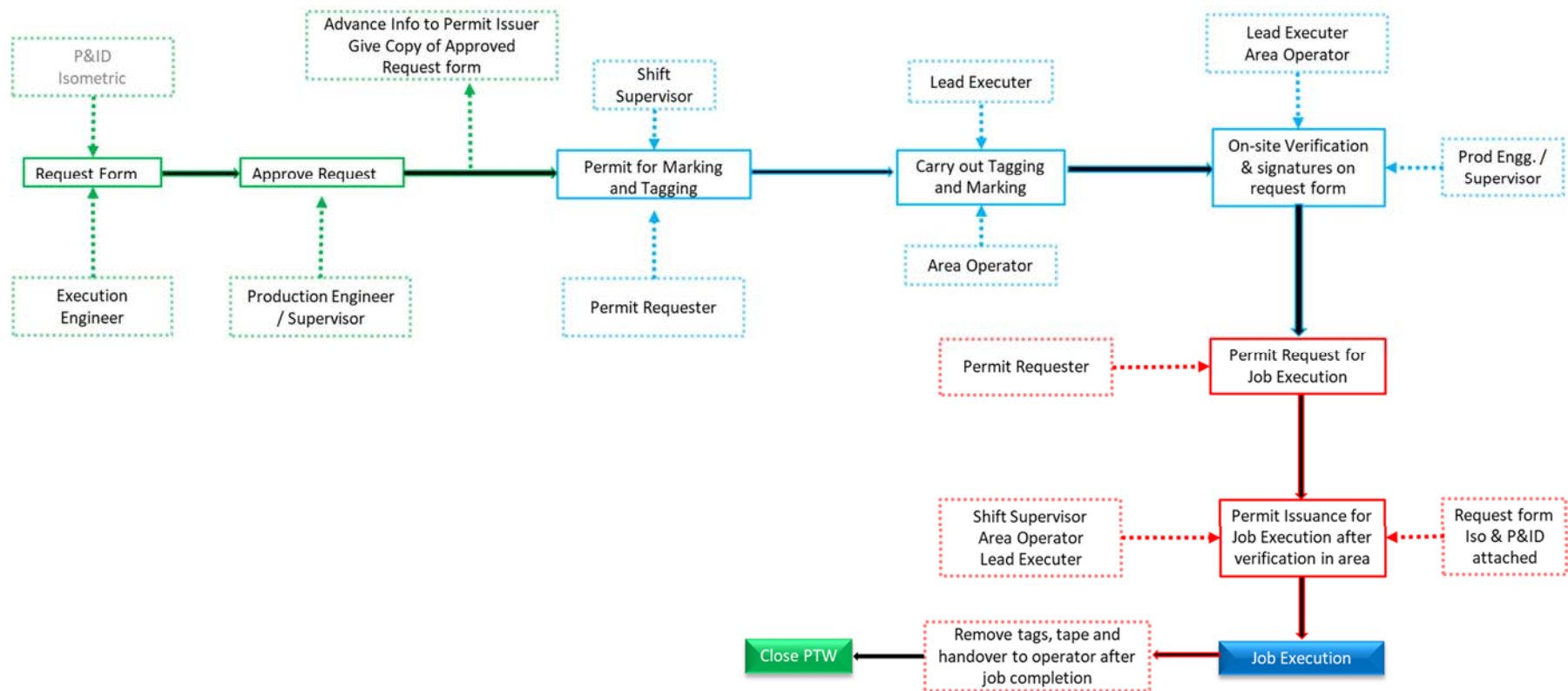
8. RECORDS

#	Record ID	Record name	Responsibility
1	NA	NA	NA
2			
3			
4			
5			

	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 11 of 16


9. APPENDIX

9.1 PIPE CUTTING LOCATION IDENTIFICATION PROCESS FLOW



	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 12 of 16

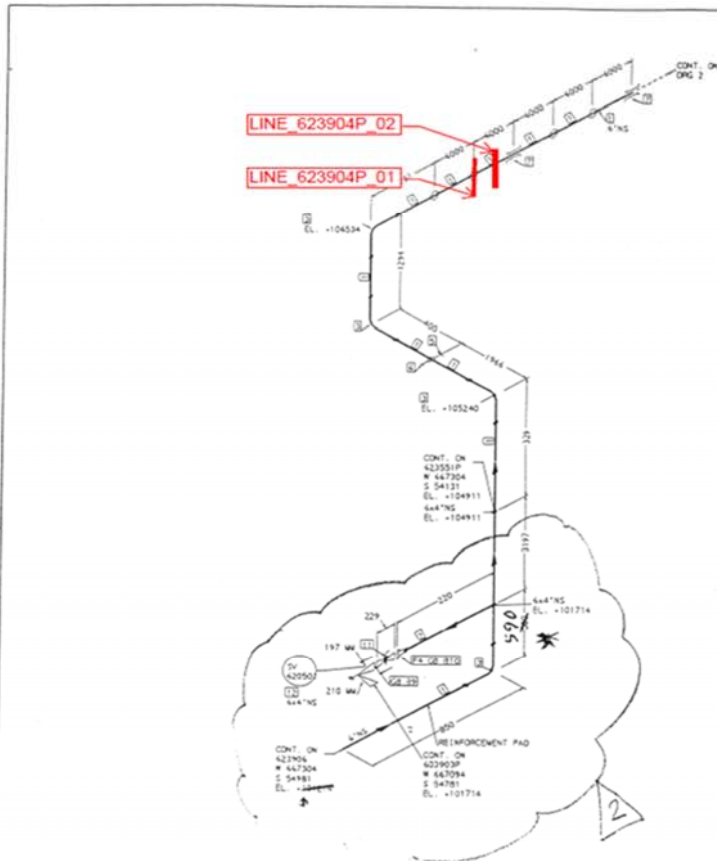
9.2 PIPE CUTTING REQUEST FORM

PIPE CUTTING REQUEST FORM								
	Line No.							
	Work Order #							
	Job Description							
Pipeline Cutting Location No	Iso Drawing No.	P&I D No.	Intervening Point Information		Cutting Method	Process Fluid	Critical Yes/No	Remarks
			Pipe Size (")	Pipe Orientation				
	Requested By	Approved By	Done By			Verified By		
			We have understood, identified, & marked all Pipe Cutting Locations correctly along with critical cuts			Checked and verified in the area		
Name								
Signature								
Designation	Execution Engineer	Production Engineer / Supervisor	Lead Executor	Area Operator		Production Engineer / Supervisor		
Date								
Note: In case Zero energy confirmation is not possible, team shall raise the concern to higher level for further assessment.								



Pipeline Cutting Location Identification

Instruction No.	IN-250-HSE-24
Revision	00
Date	21-10-19
Page No.	Page 14 of 16



*** ACTUAL MEASUREMENT
TO BE TAKEN AT SITE**

NOTE:

- For general requirements for pipeline prefabrication and erection see note on cover page of isometric package.
- The subcontractor is responsible for the establishment of all necessary field welds and allowance for adjusting length minimum 100mm in all direction.

Rev.	Date	Name	Checked	Approved	Description
02	16 Nov 00	PRT	LUD	LUC	REVISED AS MARKED
01	30 Mar 00	VRG	AKN	HB	REVISED AS MARKED

IT.	DESCRIPTION	(INS)	PART-NO.	QTY
[SHOP]				
1	6"-7.1 PIPE, SCH. STD ASME B36.10 ASTM A53 GR B	6	P_5A	38.14
2	4"-6.0 PIPE, SCH. STD ASME B36.10 ASTM A53 GR B	4	P_5A	0.24
3	6"-7.1 ELBOW, 90 DEG, SCH. STD ASME B16.9 ASTM A234 GR WPB	6	E_5A	4
4	4"-6.0 WELDING NECK FLANGE RF, CL 150 ASME B16.5 ASTM A105	4	F-C123A	1
[SITE]				
5	150x150 HANGER UN 3787-01 CLAMP: 1.0036 RST 37-2	6	HAK0030	1
6	1000x100 BRACKET UN 3789-01 L-BAR: 1.0036 RST 37-2	6	KB0010	1
7	150 U-BOLT UN 3786-01 U-BOLT: 1.0036 S235JRD1	6	ABB0030	2
8	4"x2 FLAT RING GASKET, CL 150, 2.0MM ASME B16.21 TANGLED METAL REIN:	4	O_43A	2
9	110 x5/8" STUD BOLT ASME B16.5 ASTM A193, GR B7	5/8	BB_13A	8
10	90 x5/8" STUD BOLT ASME B16.5 ASTM A193, GR B7	5/8	BB_13A	8
11	4" PLUG VALVE, CL150 API 599 ASTM A105	4"	VNC123A	1
INSTRUMENTS				
12	4"x6" SAFETY VALVE SVS20501 SV 620501	6 x 4		1

Document ID Code: QV-1V-KRU-P62-623904P Revision: 2 Revised On: 18 NOV 00

Line No: 6"-FG04-623904P-BB55CA Page: 1 OF 2

Spec: BB55CA Steam Tracing

ISO No: 623904P PIP No: 0020

Coded: 19 Nov 99 VRG Area Code: VX21 Design pressure: 31.0 bar g

Checked: 19 Nov 99 AKN Design temper: 65 deg C

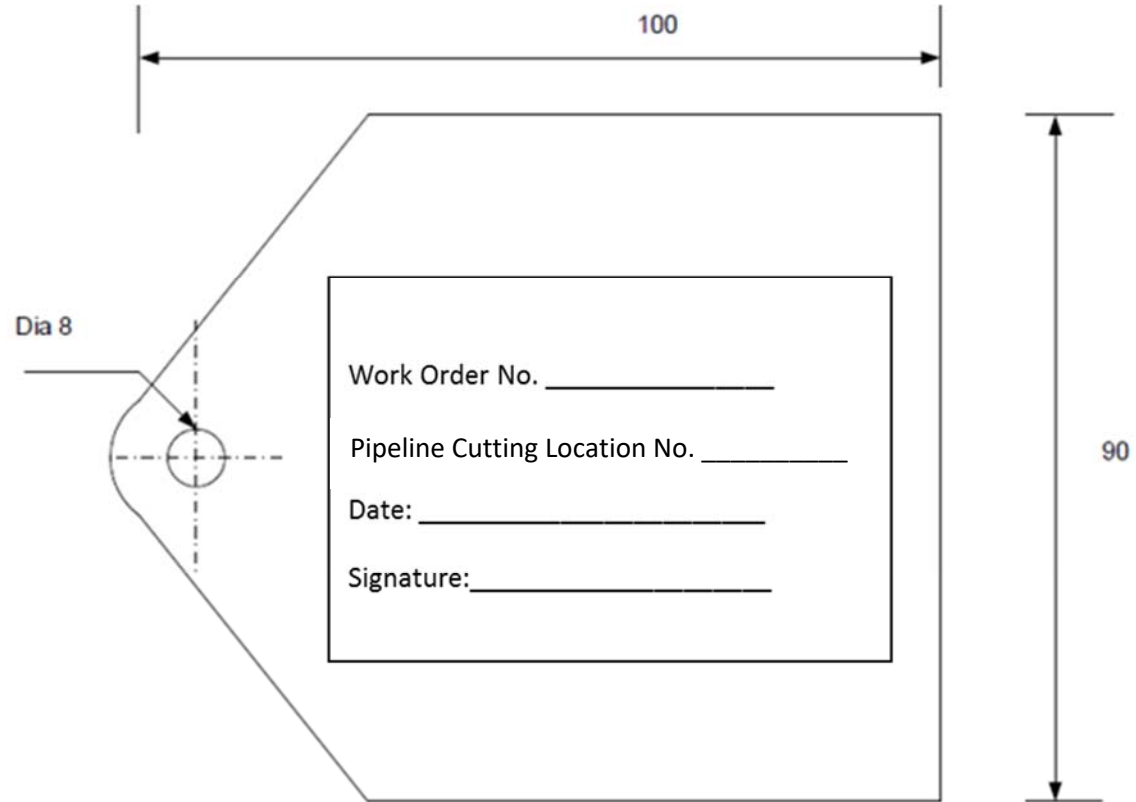
Approved: 19 Nov 99 HB UAN: 043005 Oper. pressure: bar g


Oper. temper: 45 deg C

RELEASED FOR CONSTRUCTION

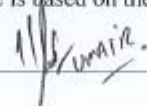




	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 15 of 16

9.4 SPECIMEN OF IDENTIFICATION TAG



	Pipeline Cutting Location Identification	Instruction No.	IN-250-HSE-24
		Revision	00
		Date	21-10-19
		Page No.	Page 16 of 16

	ADDENDUM FOR MINOR CHANGES AND REVISION	Procedure No.	PR-PSS-88-F-01
		Revision	04
		Date	19 Sept 2020
		Page No.	Page 1 of 1

Date	Division	Department / Section				
17-02-2021	HSE	HSSE Support				
Title / Ref No. of the procedure	Instruction for Pipeline Cutting Location Identification (IN-250- HSE-24)					
Category (tick)	QMS	IMS	OHSAS	ISMS	Others	
Details of the revision / change (in brief)	<p>a) Appendix 9.2 Pipe Cutting Request Form Title changed from Pipe intervention request form to pipe cutting request form "Pipe No." column removed from the request form. "Pipe Location No." column name changed to Pipeline cutting location no.</p> <p>b) Appendix 9.3 Sample Filled Form & Associated documents Title changed from Pipe intervention request form to pipe cutting request form "Pipe No." column removed from the sample filled form. "Pipe Location No." column name changed to Pipeline cutting location no.</p> <p>c) Appendix 9.4 Specimen of Identification Tag "Pipe location no." changed to "Pipeline cutting location no."</p> <p>d) Section 4. Abbreviation/Definitions "Point 11" tape color Pink color changed to "Pink orange stripped color sticky tape" "Different tape color can be approved by Safety Manager due to any issue. Uniform implementation across QAPCO shall be ensured".</p>					
Justification for revision the new procedure	<p>1- To remove duplication of line number and pipe no. as one request form is for single line no. only 2- To enhance the clarity of pipe location no. column 3- Different color for tape is based on the availability</p> <p>Initiated by: Snr. HSE Officer </p>					
Review by line management:	<p>Recommendation: </p>					
Date: 18.02.21	Signature				Date: 18.02.21	
Review by Quality department	<p>Recommendation:</p> <p>Remarks: Approved / Rejected (Tick) <input checked="" type="checkbox"/></p>					
	HSEQM signature				Date 28/2/2021	
Approved by Department Manager	<p>BASIM QURESHI HSSE SUPPORT MANAGER</p>					
CC to 	Quality department					