




DOCUMENT TITLE:

F&G CAUSE AND EFFECT DIAGRAM  
FOR PROCESS AREA

[illegible]

	D02	DEC.2023	IFA	P.HAJESADGHI	M.FAKHARMAN	S.PARAMARESPUR	00_00	***	*****	00_00	000_0000	00_00	000_0000	
	D01	OCT.2022	IFA	P.HAJESADGHI	M.FAKHARMAN	N.MEHRESHAD	00_00							
	D00	MAY.2022	IPC	P.HAJESADGHI	M.FAKHARMAN	N.MEHRESHAD	00_00	REV.	DESCRIPTION	BY DATE	BY DATE			
	REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.		CHECKED		REV. APPR.			
	PROJECT NAME:							BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION						
	PROJECT NO.:							971020						
	EPC CONTRACTOR:	 <b>HIRGAN ENERGY - DESIGN &amp; INSPECTION COMPANIES</b>			EPD/EPC CONTRACTOR (GC):  <b>PETROIRAN DEVELOPMENT COMPANY</b>			BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION						
	DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.									
(VENDOR TITLE BLOCK)**	DRAWING TITLE: F&G CAUSE AND EFFECT DIAGRAM FOR PROCESS AREA							NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED						
	APPROVED FOR CONSTRUCTION							BY:		DATE:				
	SCALE	SIZE	DRAWING NO.			SHEET NO.	REV.	BUDGET REF.	LOCATION SIZE CLASS	SERIAL NO.	SHEET	REVISION		
	A3		BK-GCS-PEDCO-120-IN-DG-0009			01 OF 13	D02	0-53-073-9184	F Z J	708952	13	D02		

SHEET NO.	REVISION								
	D00	D01	D02	D03	D04	D05	D06	D07	D08
1	X	X	X						
2	X	X	X						
3	X	X	X						
4	X	X	X						
5	X	X	X						
6	X	X	X						
7	X	X	X						
8	X	X	X						
9	X	X	X						
10	X	X	X						
11	X	X	X						
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NOTES

### LEGEND


REFERENCE DRAWING	DRG. No.
P&G LAYOUT FOR PROCESS AREA	BK-GCS-PEDCO-120-IN-PY-0005
SPECIFICATION FOR FIRE & GAS SENSOR AND DEVICES	BK-GNRL-PEDCO-000-IN-SF-0000
FIRE & GAS DETECTION DESIGN CRITERIA	BK-GCS-PEDCO-120-IN-DC-0001
ESD LEVEL HIERARCHY	BK-GCS-PEDCO-120-IN-DG-0003

## KEY PLAY

[illegible]

F&G CAUSE AND EFFECT DIAGRAM DETECTION AREA-1 (PIG RECEIVER AREA)		EFFECT	TAG	MATRIX PANEL IN CONTROL ROOM	F&G GRAPHIC DISPLAYS IN CONTROL ROOM	FIELD AREA
		DESCRIPTION				
		LAMP FOR FIRE ALARM FOR AREA1				BR-1001
		LAMP FOR FLAMMABLE GAS ALARM FOR AREA1				BY-1001
		LAMP FOR TOXIC GAS ALARM FOR AREA1				BB-1001
		COMMON AUDIBLE ALARM				HN-1001
		CR-AREA1 UNCONFIRMED FIRE ALARM				HN-1001
		CR-AREA1 UNCONFIRMED LOW FLAMMABLE GAS ALARM				HN-1001
		CR-AREA1 UNCONFIRMED HIGH FLAMMABLE GAS ALARM				HN-1001
		CR-AREA1 UNCONFIRMED LOW TOXIC GAS ALARM				HN-1001
		CR-AREA1 UNCONFIRMED HIGH TOXIC GAS ALARM				HN-1001
		ALARM RED FLASH LIGHT FOR FIRE DET.				HN-1001
		ALARM YELLOW FLASH LIGHT FOR FIRE DET.				HN-1001
		ALARM BLUE FLASH LIGHT FOR FIRE DET.				HN-1001
		ALARM SOUNDER WITH CONTINUOUS SOUND				HN-1001
		ALARM SOUNDER WITH NON-CONTINUOUS SOUND				HN-1001

CAUSE

[illegible][illegible]

<b>KEY PLAN</b>

(VENDOR TITLE BLOCK)\*\*

[illegible]

CAUSE

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**NOTES**

1. (CR)CONTROL ROOM MONITORING IS DEDICATED TO ALARMING ON F&G OPERATOR WORKSTATION.
2. 2 DIFFERENT TONES TO BE SELECTED FOR HORN AND BEACON ONE FOR FLAMMABLE/ TOXIC GAS DETECTION LOW ALARM (NON-CONTINUOUS) AND ONE FOR FIRE DETECTION & FLAMMABLE/ TOXIC GAS DETECTION HIGH ALARM(CONTINUOUS).
3. DIFFERENT COLORS TO BE SELECTED FOR LIGHTS OF BEACONS:  
  
RED FOR FIRE DETECTION  
  
BLUE FOR TOXIC GAS DETECTION  
  
YELLOW FOR FLAMMABLE GAS DETECTION  
  
DET.:DETECTION

4.ESD 1A : Emergency Shutdown with Depressurizing TRIP ALL TRAINS  
ESD2A : Emergency Shutdown with Depressurizing TRIP RELATED TRAIN

**LEGEND**

ORG. No.

BK-GCS-PEDCO-120-IN-PY-0005

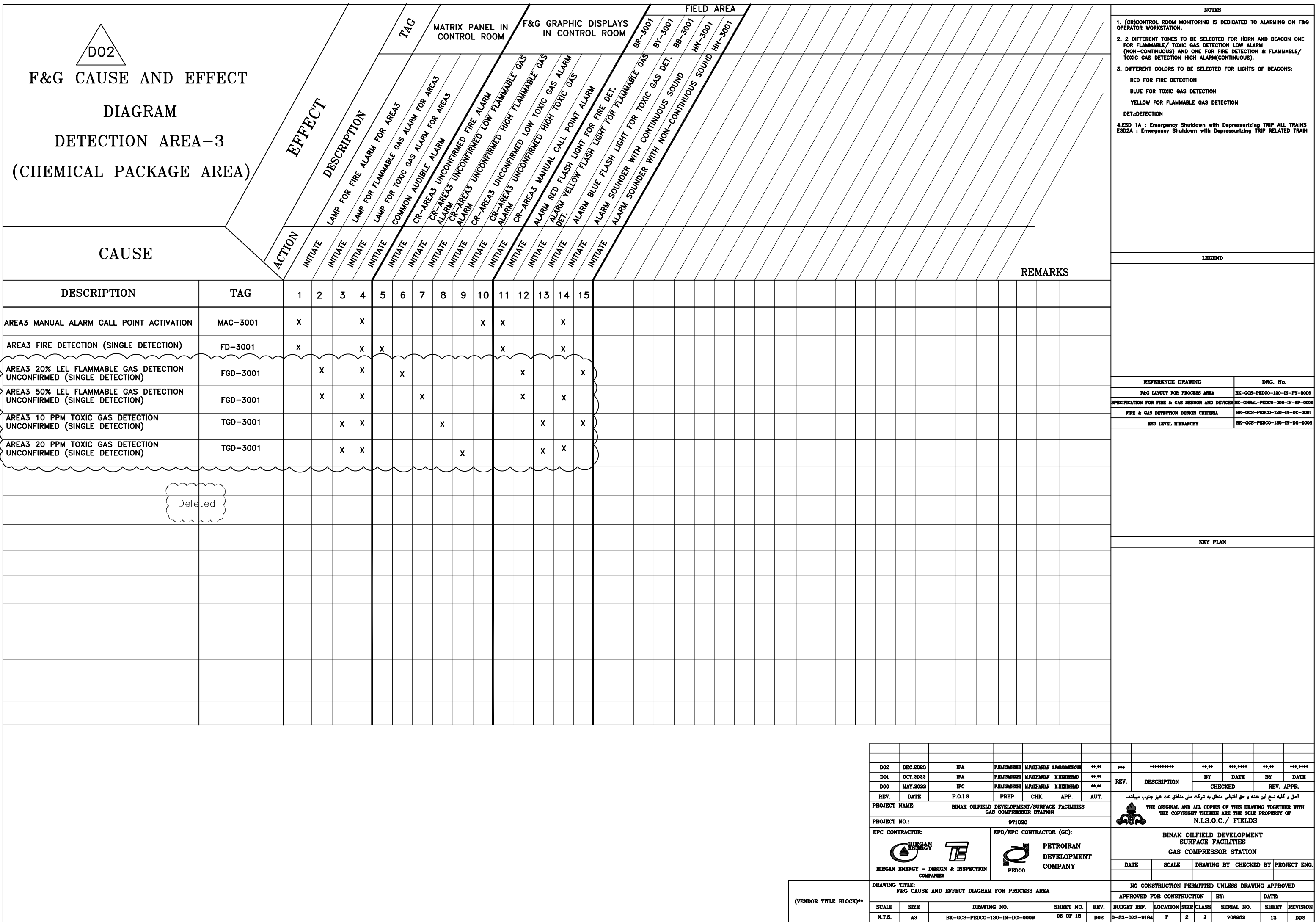
FIRE & GAS DETECTION DESIGN CRITERIA BK-GCS-PEDCO-120-IN-DC-0001

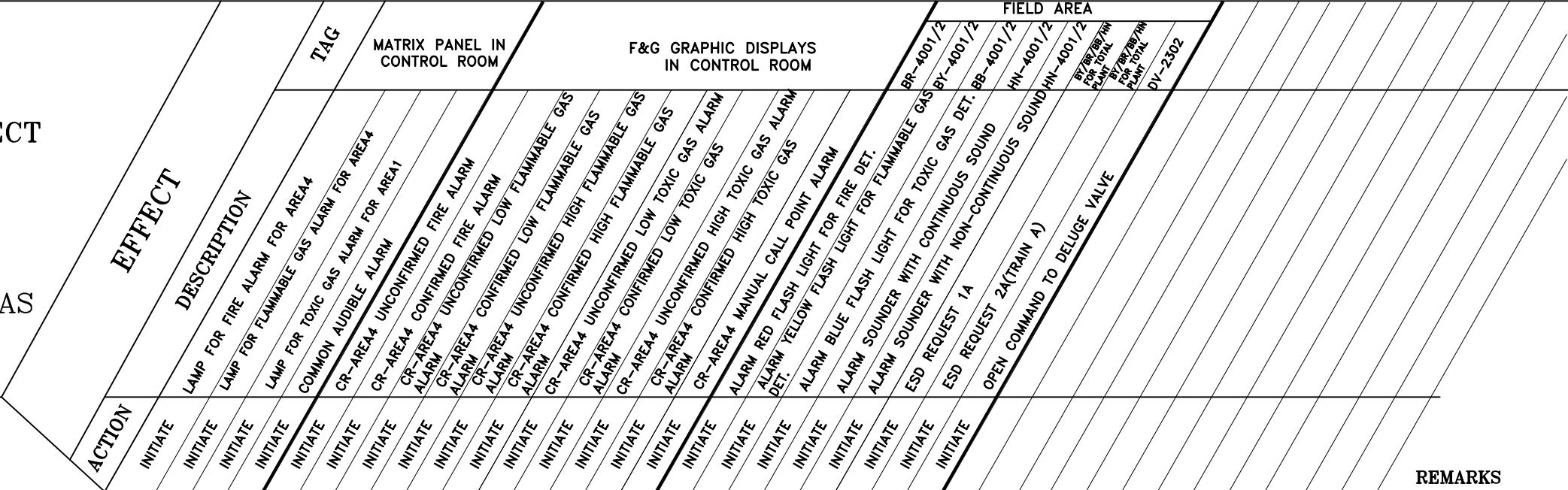
BK-GCS-PEDCO-120-IN-DC-0001

BK-GCS-PEDCO-120-IN-DG-0003

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(VENDOR TITLE BLOCK)\*\*





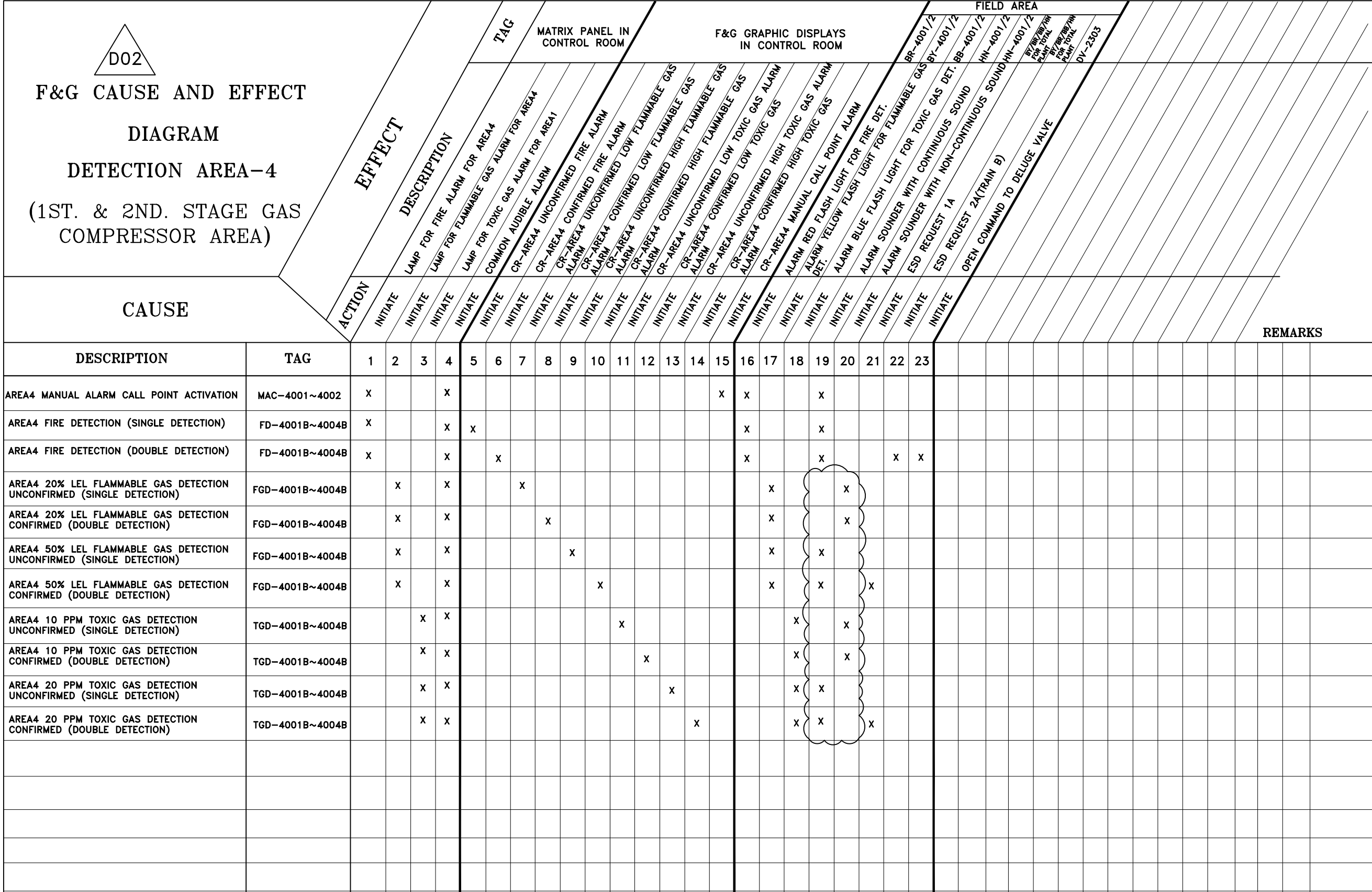
**NOTES**

1. (CR) CONTROL ROOM MONITORING IS DEDICATED TO ALARMING ON F&G OPERATOR WORKSTATION.
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DET.:DETECTION


4.ESD 1A : Emergency Shutdown with Depressurizing TRIP ALL TRAINS  
ESD2A : Emergency Shutdown with Depressurizing TRIP RELATED TRAIN

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(VENDOR TITLE BLOCK)\*\*



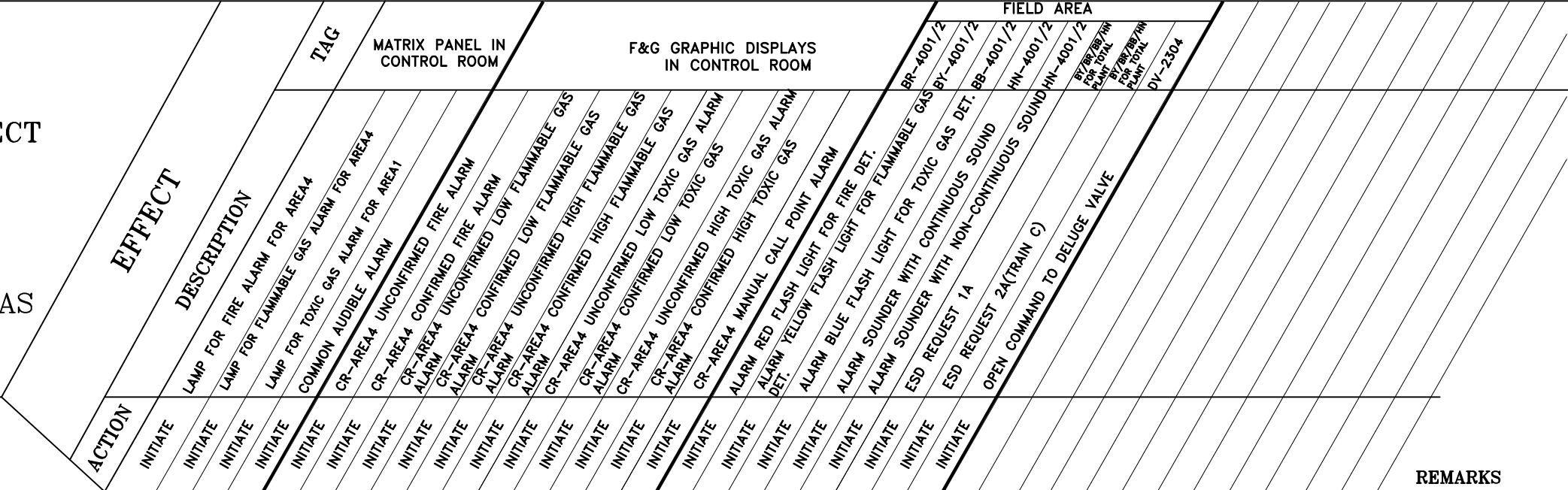
<b>LEGEND</b>	
<b>REFERENCE DRAWING</b>	<b>DRG. No.</b>
<b>P&amp;G LAYOUT FOR PROCESS AREA</b>	<b>EK-GCS-PEDCO-180-IN-FY-0005</b>
<b>SPECIFICATION FOR FIRE &amp; GAS SENSOR AND DEVICES</b>	<b>EK-GNRL-PEDCO-000-IN-SF-0009</b>
<b>FIRE &amp; GAS DETECTION DESIGN CRITERIA</b>	<b>EK-GCS-PEDCO-180-IN-DC-0001</b>
<b>ESD LEVEL HIERARCHY</b>	<b>EK-GCS-PEDCO-180-IN-DG-0005</b>



### KEY PLAN

[illegible]

(VENDOR TITLE BLOCK)\*\*



**NOTES**

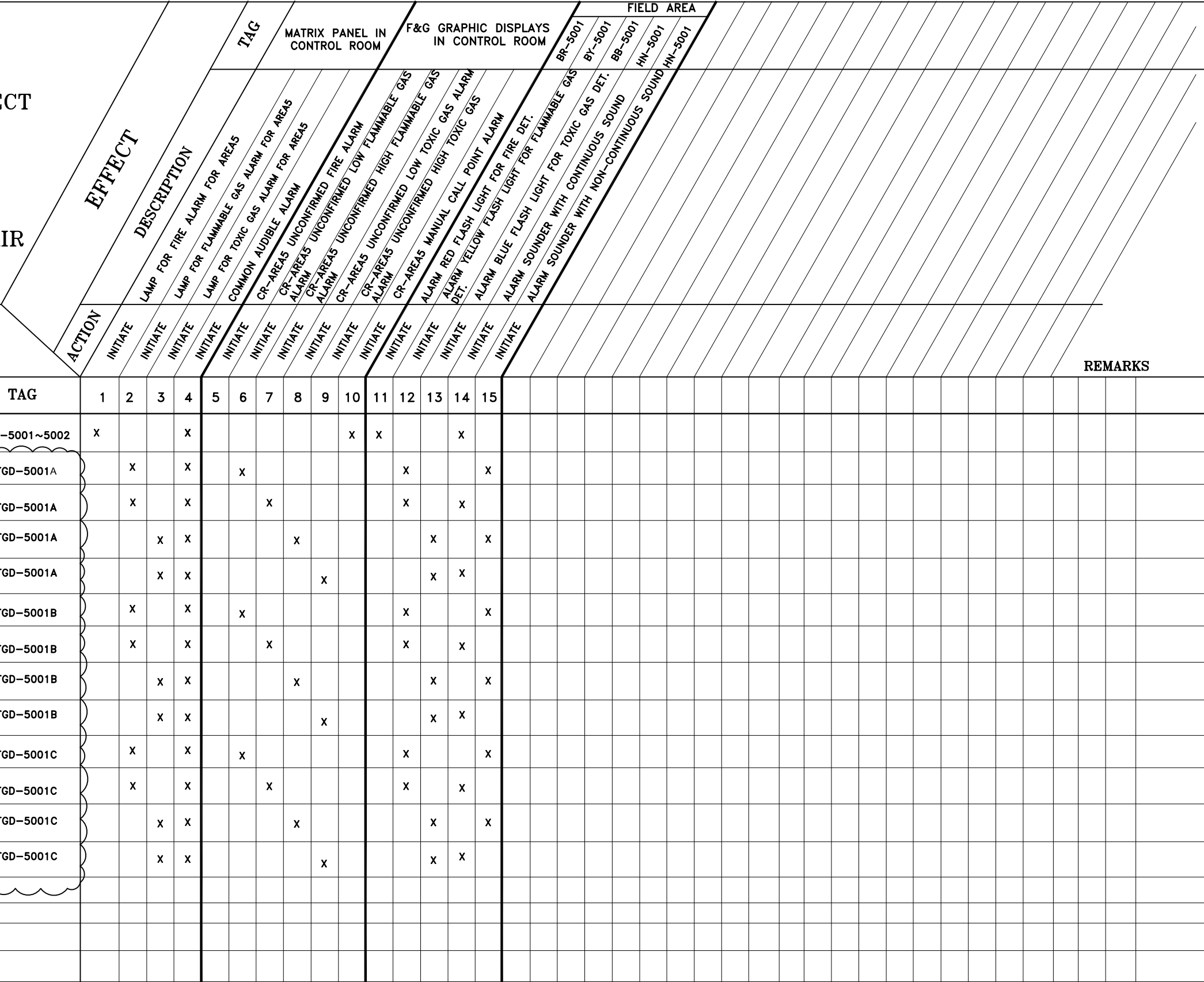
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ESD2A : Emergency Shutdown with Depressurizing TRIP RELATED TRAIN

[illegible][illegible]



(VENDOR TITLE BLOCK)\*\*



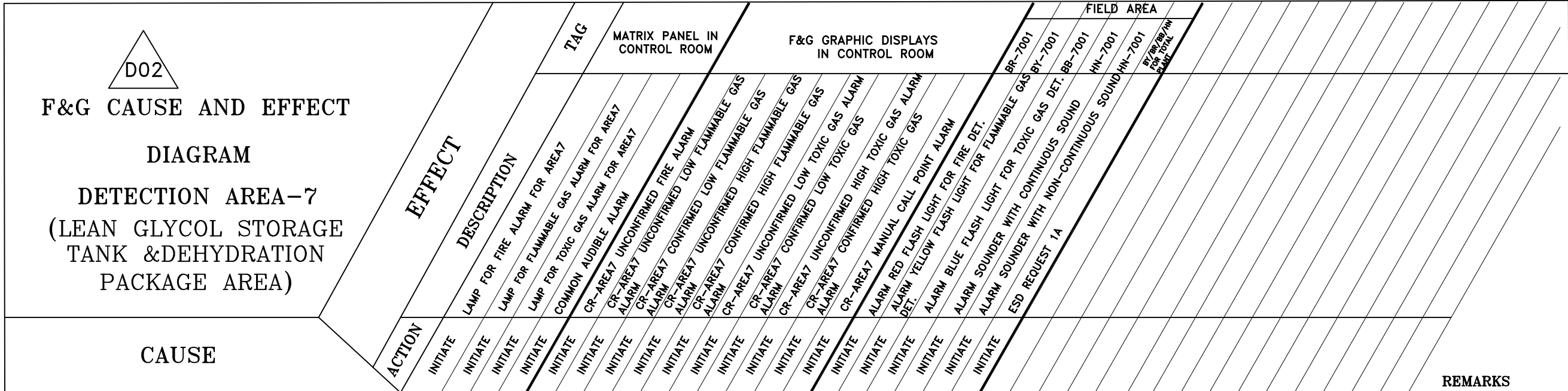
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F&G CAUSE AND EFFECT DIAGRAM DETECTION AREA-6 (SUMP & PIG LAUNCHER AREA)	EFFECT	TAG	MATRIX PANEL IN CONTROL ROOM	F&G GRAPHIC DISPLAYS IN CONTROL ROOM	FIELD AREA			
					BR-6001	BY-6001	BB-6001	HN-6001
	DESCRIPTION							
	LAMP FOR FIRE ALARM FOR AREA6							
	LAMP FOR FLAMMABLE GAS ALARM FOR AREA6							
	LAMP FOR TOXIC GAS ALARM FOR AREA6							
	COMMON AUDIBLE ALARM							
	CR-AREA6 UNCONFIRMED FIRE ALARM							
	CR-AREA6 UNCONFIRMED LOW FLAMMABLE GAS ALARM							
	CR-AREA6 UNCONFIRMED HIGH FLAMMABLE GAS ALARM							
	CR-AREA6 UNCONFIRMED LOW TOXIC GAS ALARM							
	CR-AREA6 UNCONFIRMED HIGH TOXIC GAS ALARM							
	ALARM RED FLASH LIGHT FOR FIRE DET.							
	ALARM YELLOW FLASH LIGHT FOR FIRE DET.							
	ALARM BLUE FLASH LIGHT FOR FIRE DET.							
	ALARM SOUNDER WITH CONTINUOUS SOUND							
	ALARM SOUNDER WITH NON-CONTINUOUS SOUND							

CAUSE

D02	DEC.2023	IFA	P.HAJIRADDEGH	M.PAKHARIAN	S.PARHAMPOUR	00.00
D01	OCT.2022	IFA	P.HAJIRADDEGH	M.PAKHARIAN	M.MEHRSHAD	00.00
D00	MAY.2022	IPC	P.HAJIRADDEGH	M.PAKHARIAN	M.MEHRSHAD	00.00
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
PROJECT NAME: BINAQ OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION						
PROJECT NO.:			971020			
EPC CONTRACTOR:			EPD/EPC CONTRACTOR (GC):			
 <b>HIRGAN ENERGY - DESIGN &amp; INSPECTION COMPANIES</b>			 <b>PETROIRAN DEVELOPMENT COMPANY</b>			
(VENDOR TITLE BLOCK)**	DRAWING TITLE: F&G CAUSE AND EFFECT DIAGRAM FOR PROCESS AREA					
	SCALE	SIZE	DRAWING NO.		SHEET NO.	REV.
	N.T.S.	A3	BK-GCS-PEDCO-120-IN-DG-0009		10 OF 13	D00

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D02	DEC.2023	IFA	P.HANSADEGH	M.PAKHARAN	S.PARMAKZPOUR	00.00
D01	OCT.2022	IFA	P.HANSADEGH	M.PAKHARAN	M.MEHRSHAD	00.00
D00	MAY.2022	IPC	P.HANSADEGH	M.PAKHARAN	M.MEHRSHAD	00.00
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.
PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION						
PROJECT NO.:			971020			
EPC CONTRACTOR:			EPD/EPC CONTRACTOR (GC):			
 <b>HURGAN ENERGY - DESIGN &amp; INSPECTION COMPANIES</b>			 <b>PETROIRAN DEVELOPMENT COMPANY</b>			
(VENDOR TITLE BLOCK)**	DRAWING TITLE: F&G CAUSE AND EFFECT DIAGRAM FOR PROCESS AREA					
	SCALE	SIZE	DRAWING NO.			REV.
	N.T.S.	A3	BK-GCS-PEDCO-120-IN-DG-0009			11 OF 13 D02

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CAUSE
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[illegible]



**NOTES**

1. (CR)CONTROL ROOM MONITORING IS DEDICATED TO ALARMING ON F&G OPERATOR WORKSTATION.
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<b>LEGEND</b>
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P&G LAYOUT FOR PROCESS AREA	BK-GCS-PEDCO-120-IN-PY-0005
SPECIFICATION FOR FIRE & GAS SENSOR AND DEVICES	BK-GNRAI-PEDCO-000-IN-SF-0009
FIRE & GAS DETECTION DESIGN CRITERIA	BK-GCS-PEDCO-120-IN-DC-0001
ESD LEVEL HIERARCHY	BK-GCS-PEDCO-120-IN-DG-0003

KEY PLAN
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D02	DEC.2023	IFA	P.HAJIRADEGH	M.PAKHARIAN	S.FARMAZPOUR	06.00	
D01	OCT.2022	IFA	P.HAJIRADEGH	M.PAKHARIAN	N.MHERSHAD	06.00	
D00	MAY.2022	IFC	P.HAJIRADEGH	M.PAKHARIAN	N.MHERSHAD	06.00	
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.	
PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS COMPRESSOR STATION							
PROJECT NO.:			971020				
EPC CONTRACTOR:			EPD/EPC CONTRACTOR (GC):				
 HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES			 PETROIRAN DEVELOPMENT COMPANY				
DRAWING TITLE: F&G CAUSE AND EFFECT DIAGRAM FOR PROCESS AREA							
SCALE	SIZE	DRAWING NO.				SHEET NO.	REV.
N.T.S.	A3	BK-GCS-PEDCO-120-IN-DG-0009				12 OF 13	D02

اصل و کلیه نسخ این نقشه و حق اقتباس متعلق به شرکت ملی مناطق نفت خیز جنوب میباشد.

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BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION									
DATE		SCALE		DRAWING BY		CHECKED BY		PROJECT ENG.	
NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED									
APPROVED FOR CONSTRUCTION					BY:		DATE:		
BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.			SHEET	REVISION	
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