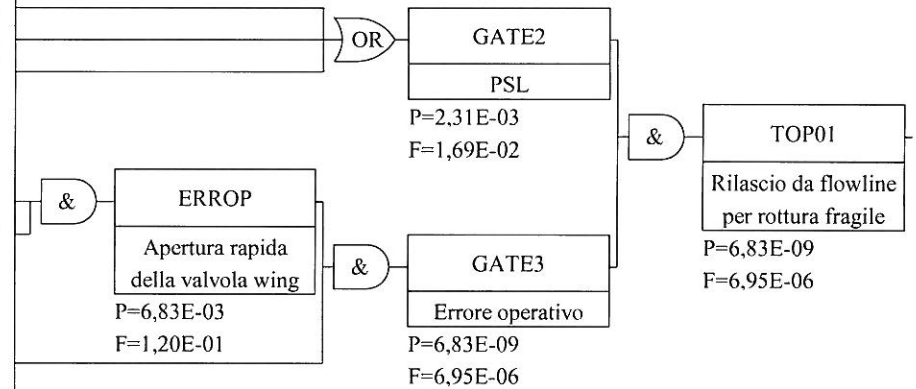


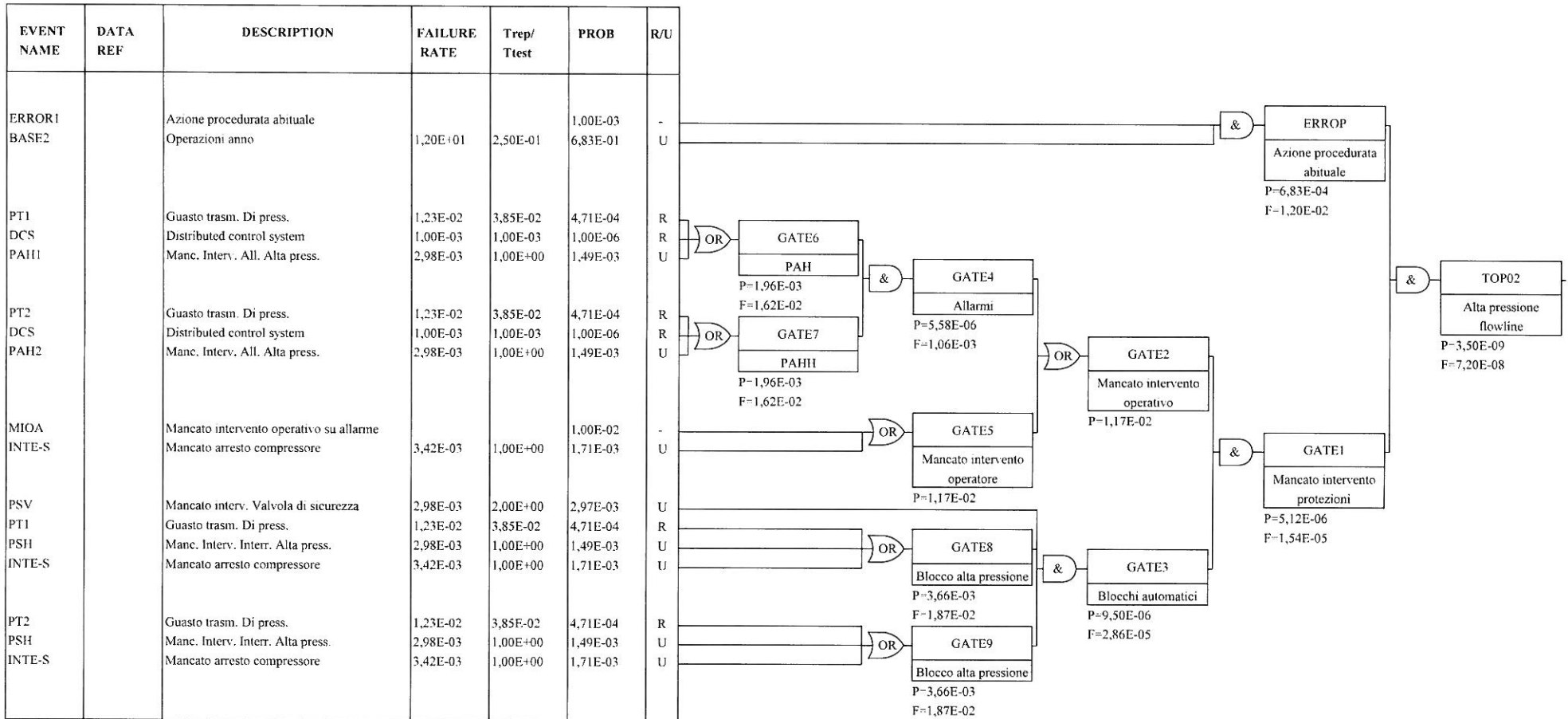
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
PT		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
ERROR2 BASE1		Azione procedurata non abituale Operazioni/anno	1,20E+01	2,50E-01	1,00E-02 6,83E-01	- U
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 01-03-12 Time: 17.20.34
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\C15~1.2AL\LOGAN\TOP01
Cutset Order: 6
Proof Tests : Simultaneous

Mauro Gatti

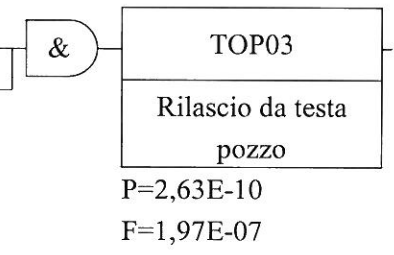
FIGURE . FAULT TREE FOR RILASCIO DA FLOWLINE PER ROTTURA FRAGILE



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-04-12 Time: 17.38.12
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\C15~1.2\ALL\LOGAN\TOP02
Cutset Order: 6
Proof Tests : Simultaneous

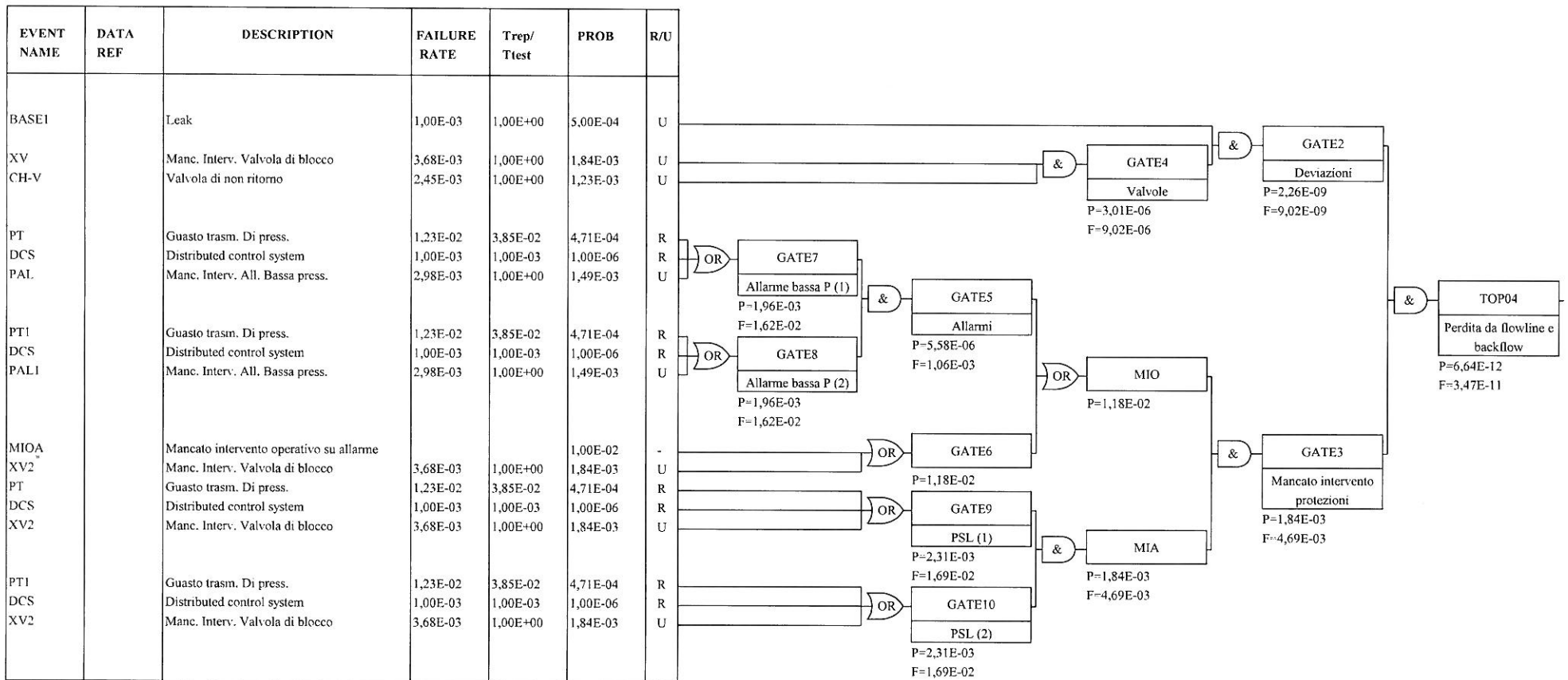
FIGURE . FAULT TREE FOR ALTA PRESSIONE FLOWLINE

EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
BASE1 SCSSV		Troncamento testa pozzo per urto terzi (3 pozzi) Surface controlled sub surface v. fails to close	6,00E-05 2,60E-02	2,70E-03 2,50E-01	8,10E-08 3,24E-03	U U



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-04-12 Time: 12.19.01
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\C15~1.2AL\LOGAN\TOP03
Cutset Order: 6
Proof Tests : Simultaneous

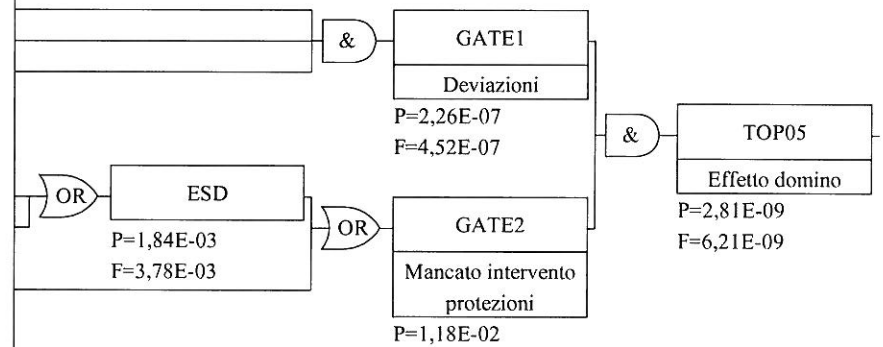
FIGURE . FAULT TREE FOR RILASCIO DA TESTA POZZO



LOGAN Version 5.13 Serial No. 5111
 Date (dd-mm-yy): 01-03-12 Time: 18.03.35
 Fault Tree File : I:\PROGER\201GA--1\VALLEGAT\N\C15--1.2\AL\LOGAN\TOP04
 Cutset Order: 6
 Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR PERDITA DA FLOWLINE E BACKFLOW

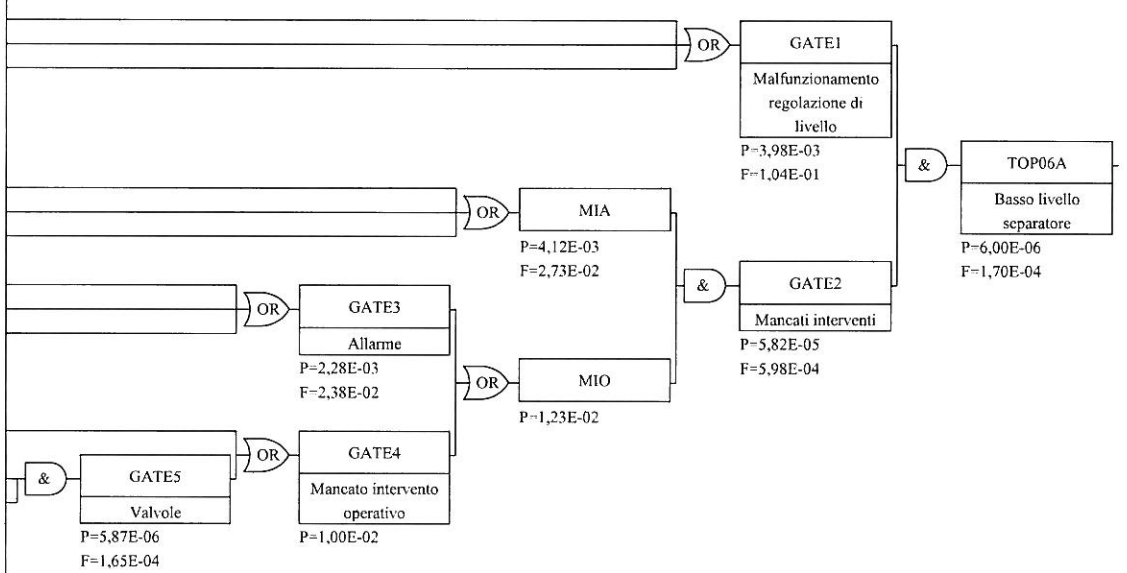
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
BASE2		Lakage	1,13E-04	1,00E+00	5,65E-05	U
BASE3		Innesco			4,00E-02	-
BASE4		Getto direzionato verso il bersaglio			1,00E-01	-
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
BASE1		Cavo termosensibile			1,00E-02	-



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 09-03-12 Time: 12.51.42
Fault Tree File : I:\PROGER\1201GA~1\ALLEGAT\1C15~1.2A\LOGAN\TOP05
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR EFFETTO DOMINO

EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
LT		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
LV		Valvola di regolazione portata	8,32E-02	3,85E-02	3,19E-03	R
LT2		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
L.SL		Manc. Interv. Interr. Basso liv.	2,98E-03	1,00E+00	1,49E-03	U
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
LT3		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
LAL		Manc. Interv. All. Basso liv.	2,98E-03	1,00E+00	1,49E-03	U
MIOA		Mancato intervento operativo su allarme			1,00E-02	-
L.V		Valvola di regolazione portata	8,32E-02	3,85E-02	3,19E-03	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U



LOGAN Version 5.13 Serial No. 5111
 Date (dd-mm-yy): 01-03-12 Time: 18.21.18
 Fault Tree File : I:\PROGER\201GA-IVALLEGAT\IC15-1.2AL\LOGANTOP06A
 Cutset Order: 6
 Proof Tests : Simultaneous

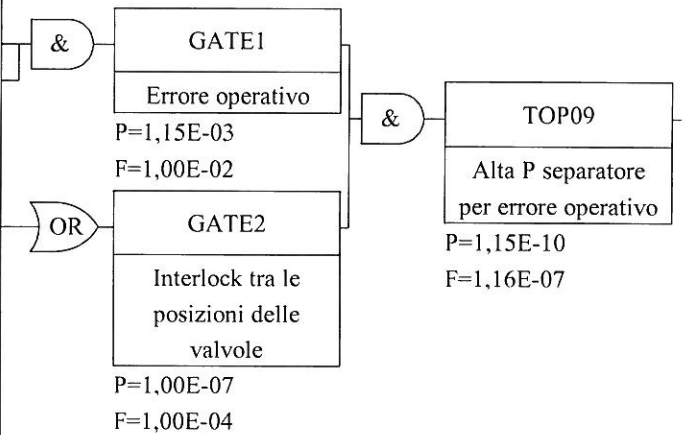
FIGURE . FAULT TREE FOR BASSO LIVELLO SEPARATORE

EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
ERROR1 BASE3		Azione procedurata abituale Operazioni/anno	1,20E+01	2,50E-01	1,00E-03 6,83E-01	- U
BASE1 PT		Valvole lucchettate Guasto trasm. Di press.	1,23E-02	3,85E-02	1,00E-04 4,71E-04	- R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
PAL		Manc. Interv. All. Bassa press.	2,98E-03	1,00E+00	1,49E-03	U

LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 01-03-12 Time: 18.31.11
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\IC15~1.2\ALLOGANTOP06B
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR BASSO LIVELLO SEPARATORE PER ERRORE OPERATIVO

EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
ERROR2 BASE1		Azione procedurata non abituale Fattore di utilizzo	1,00E+00	2,50E-01	1,00E-02 1,15E-01	- U
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R



LOGAN Version 5.13 Serial No. 5111

Date (dd-mm-yy): 09-03-12 Time: 14.19.23

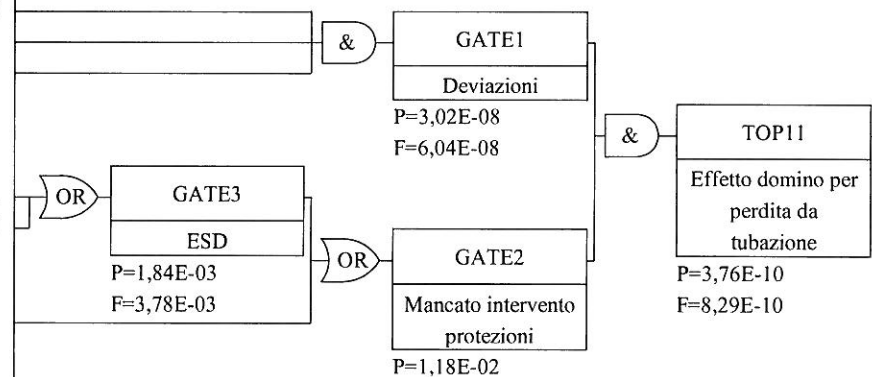
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\IC15~1.2A\LOGAN\TOP09

Cutset Order: 6

Proof Tests : Simultaneous

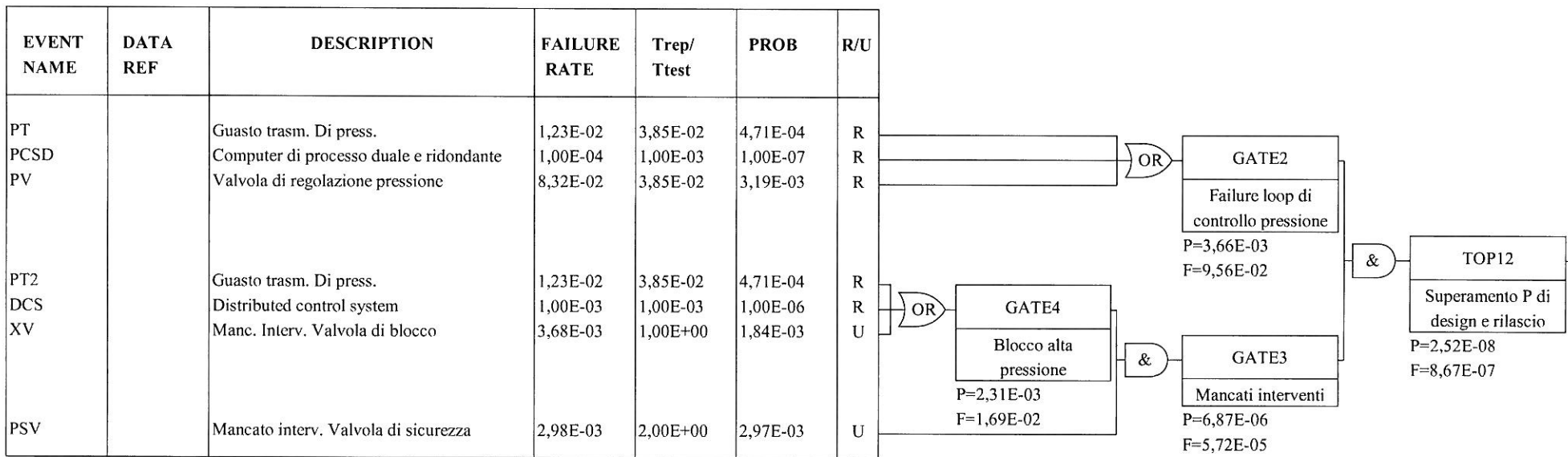
FIGURE . FAULT TREE FOR ALTA P SEPARATORE PER ERRORE OPERATIVO

EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
BASE1		Leakage	1,51E-05	1,00E+00	7,55E-06	U
BASE2		Innesco			4,00E-02	-
BASE3		Getto direzionato verso il bersaglio			1,00E-01	-
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
BASE4		Cavi termosensibili			1,00E-02	-



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 09.27.40
Fault Tree File : I:\PROGER\1201GA~1\ALLEGAT\IC15~1.2AL\LOGAN\TOP10
Cutset Order: 6
Proof Tests : Simultaneous

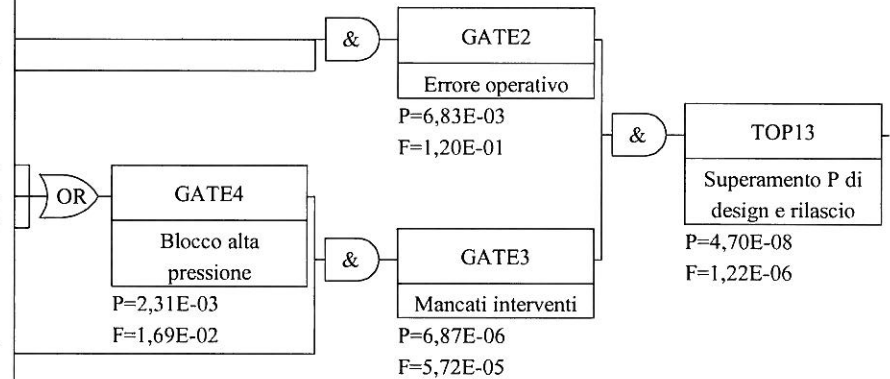
FIGURE . FAULT TREE FOR EFFETTO DOMINO PER PERDITA DA TUBAZIONE



LOGAN Version 5.13 Serial No. 5111
 Date (dd-mm-yy): 02-03-12 Time: 09.41.56
 Fault Tree File : I:\PROGER\1201GA~1\ALLEGAT\IC15~1.2A\LOGAN\TOP12
 Cutset Order: 6
 Proof Tests : Simultaneous

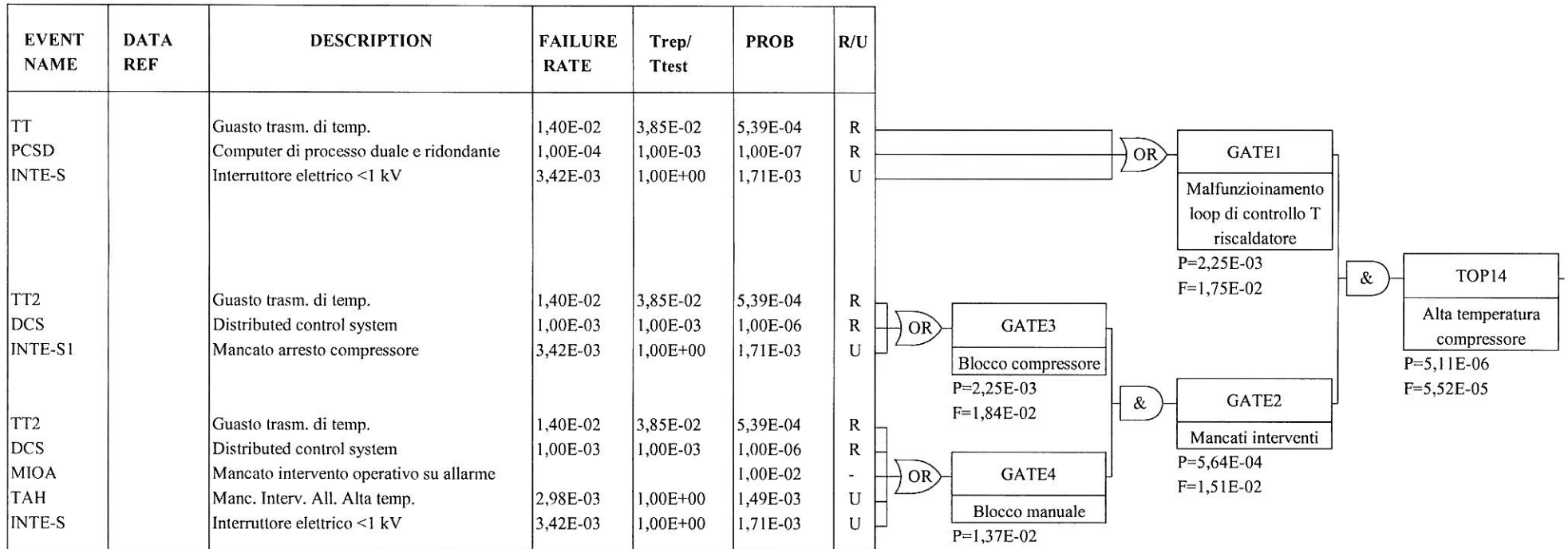
FIGURE . FAULT TREE FOR SUPERAMENTO P DI DESIGN E RILASCIO

EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
ERROR2 OP		Azione procedurata non abituale Operazioni anno	1,20E+01	2,50E-01	1,00E-02 6,83E-01	- U
PT2 DCS XV		Guasto trasm. Di press. Distributed control system Manc. Interv. Valvola di blocco	1,23E-02 1,00E-03 3,68E-03	3,85E-02 1,00E-03 1,00E+00	4,71E-04 1,00E-06 1,84E-03	R R U
PSV		Mancato interv. Valvola di sicurezza	2,98E-03	2,00E+00	2,97E-03	U



LOGAN Version 5.13 Serial No. 5111
 Date (dd-mm-yy): 02-03-12 Time: 09.46.20
 Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\IC15~1.2AL\LOGANTOP13
 Cutset Order: 6
 Proof Tests : Simultaneous

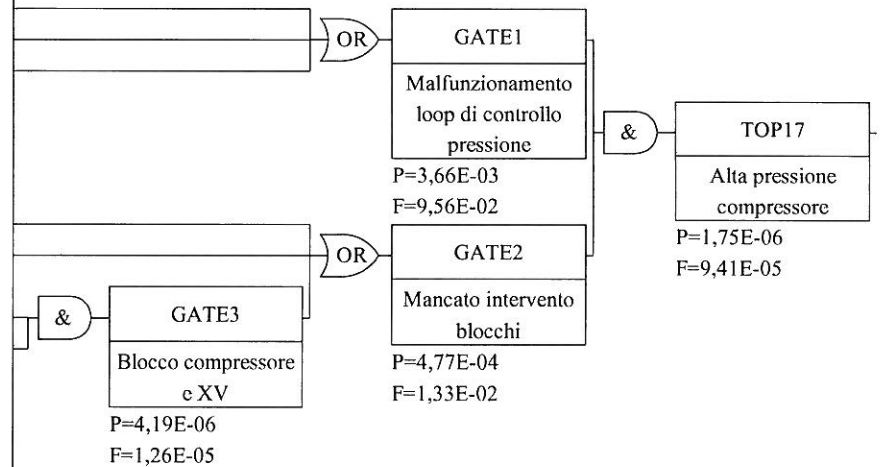
FIGURE . FAULT TREE FOR SUPERAMENTO P DI DESIGN E RILASCIO



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 09.59.26
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATTI\C15~1.2A\LOGAN\TOP14
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA TEMPERATURA COMPRESSORE

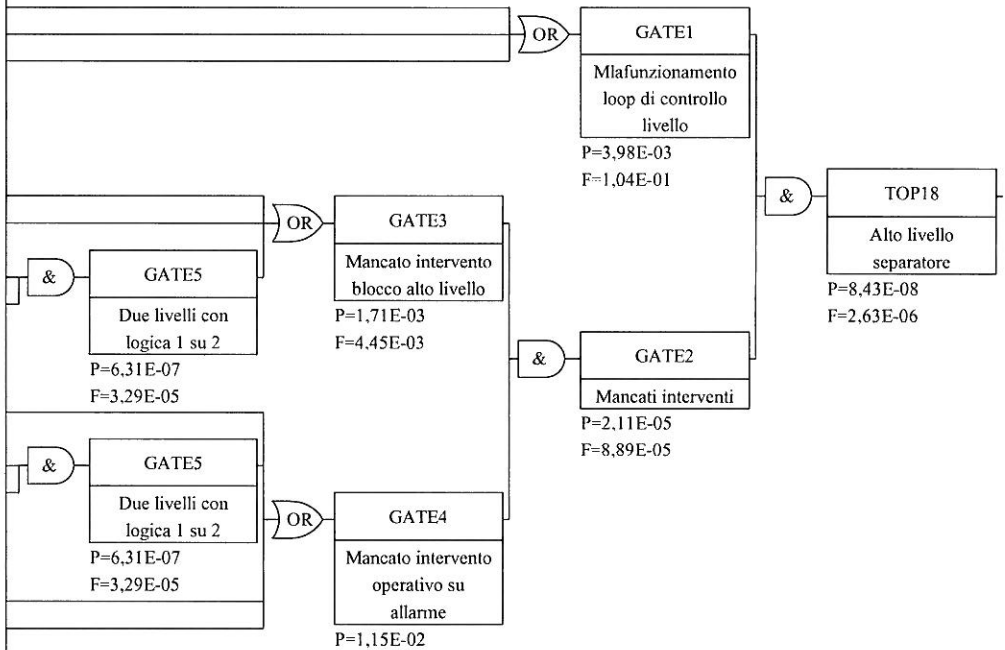
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
PT		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
PV		Valvola di regolazione pressione	8,32E-02	3,85E-02	3,19E-03	R
PT2		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
INTE-S		Mancato arresto compressore	3,42E-03	1,00E+00	1,71E-03	U
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 10.11.10
Fault Tree File : I:\PROGER\1201GA~1\ALLEGAT\1C15~1.2AL\LOGAN\TOP17
Cutset Order: 6
Proof Tests : Simultaneous

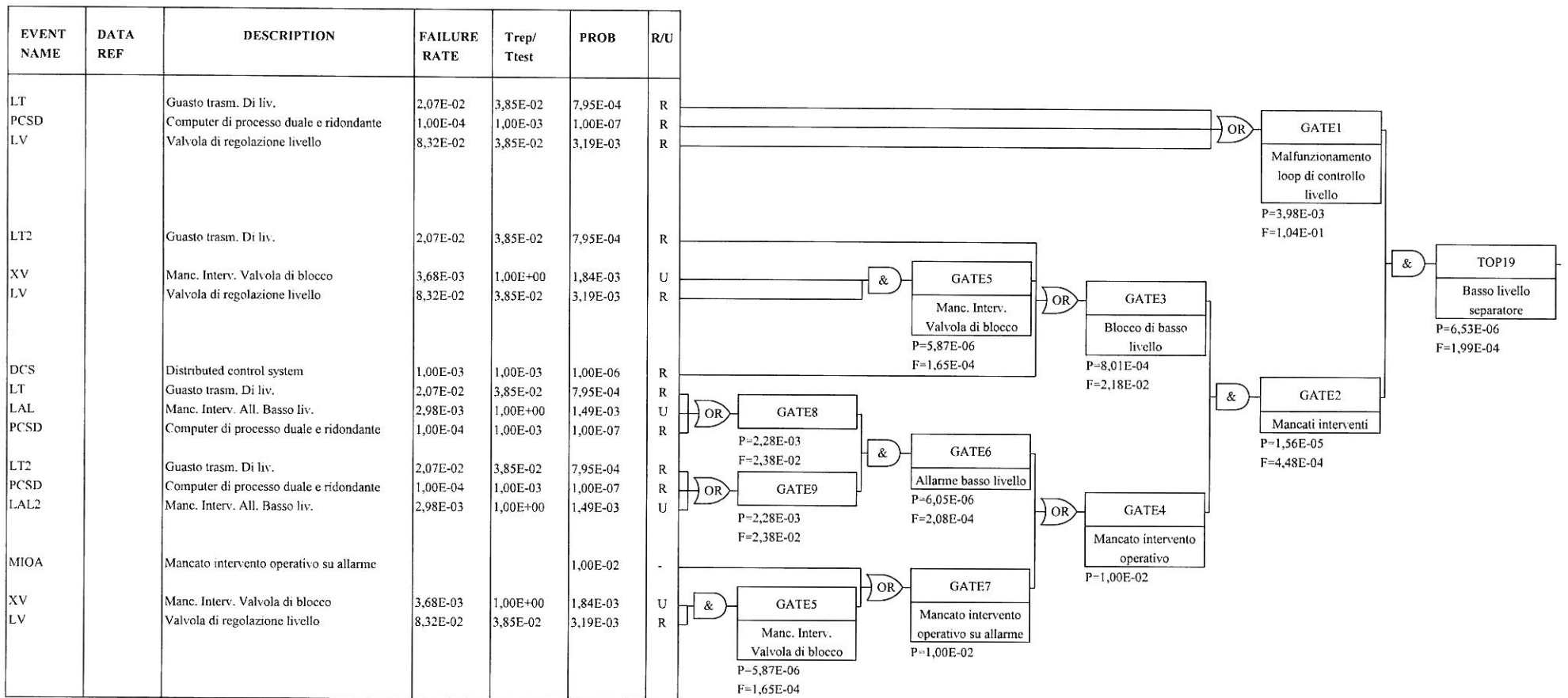
FIGURE . FAULT TREE FOR ALTA PRESSIONE COMPRESSORE

EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/Ttest	PROB	R/U
LT		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
LV		Valvola di regolazione portata	8,32E-02	3,85E-02	3,19E-03	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
INTE-S		Mancato arresto compressore	3,42E-03	1,00E+00	1,71E-03	U
LT2		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
LT2-B		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
LAH		Manc. Interv. All. Alto liv.	2,98E-03	1,00E+00	1,49E-03	U
LT2		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
LT2-B		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
MIOA		Mancato intervento operativo su allarme			1,00E-02	-
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R



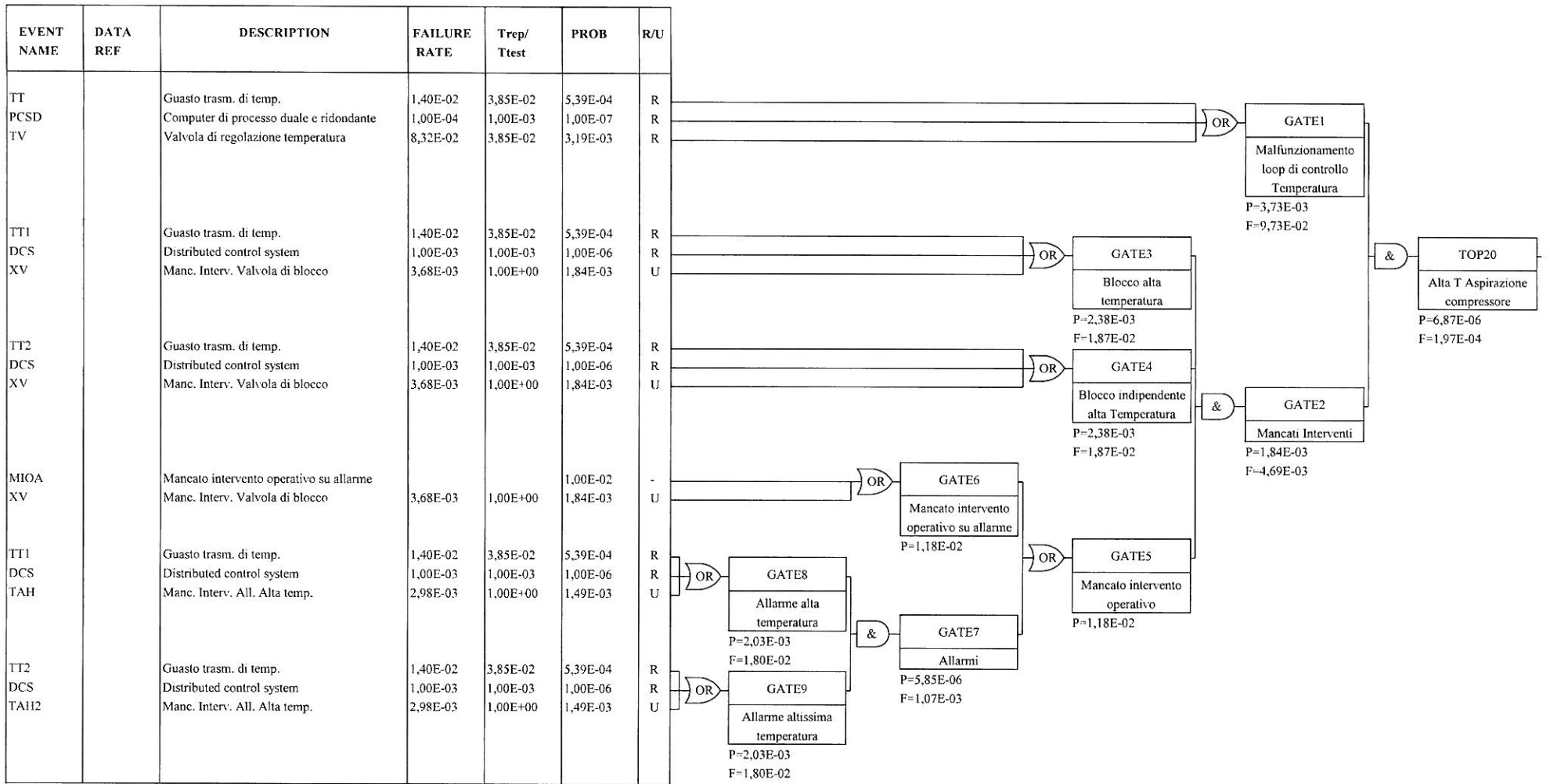
LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 10.38.47
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\C15~1.2A\LOGAN\TOP18
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTO LIVELLO SEPARATORE



LOGAN Version 5.13 Serial No. 5111
 Date (dd-mm-yy): 09-03-12 Time: 15.57.32
 Fault Tree File : I:\PROGER\201GA~1\ALLEGAT\IC15~1.2\ALLOGAN\TOP19
 Cutset Order: 6
 Proof Tests : Simultaneous

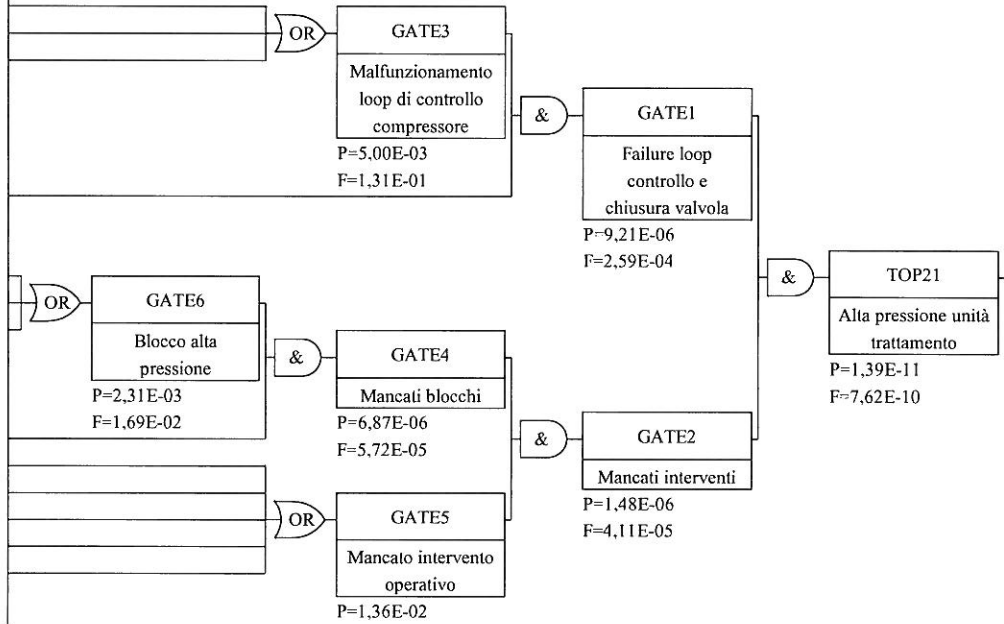
FIGURE . FAULT TREE FOR BASSO LIVELLO SEPARATORE



LOGAN Version 5.13 Serial No. 5111
 Date (dd-mm-yy): 02-03-12 Time: 10.52.21
 Fault Tree File : I:\PROGER\1201GA~1\ALLEGAT\IC15~1.2\ALLOGAN\TOP20
 Cutset Order: 6
 Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA T ASPIRAZIONE COMPRESSORE

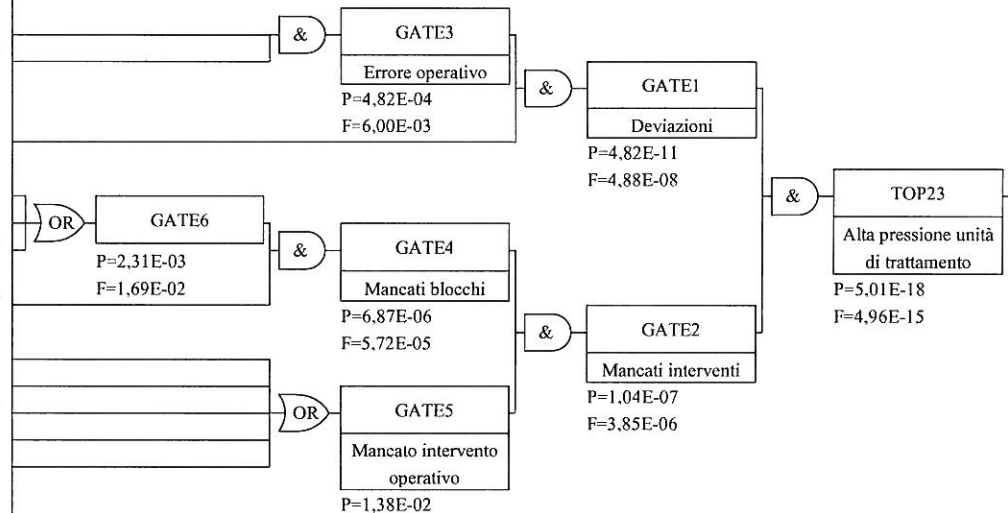
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
FT		Guasto trasm. Di flusso	4,73E-02	3,85E-02	1,82E-03	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
FV		Valvola di regolazione flusso	8,32E-02	3,85E-02	3,19E-03	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
PT		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
XV2		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
PSV		Mancato interv. Valvola di sicurezza	2,98E-03	2,00E+00	2,97E-03	U
PT		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
PAH		Manc. Interv. All. Alta press.	2,98E-03	1,00E+00	1,49E-03	U
MIOA		Mancato intervento operativo su allarme			1,00E-02	-
INTE-S		Mancato arresto compressore	3,42E-03	1,00E+00	1,71E-03	U



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 11.08.10
Fault Tree File : I:\PROGER\201GA~1\ALLEGATTI\C15~1.2\ALLOGAN\TOP21
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA PRESSIONE UNITÀ TRATTAMENTO

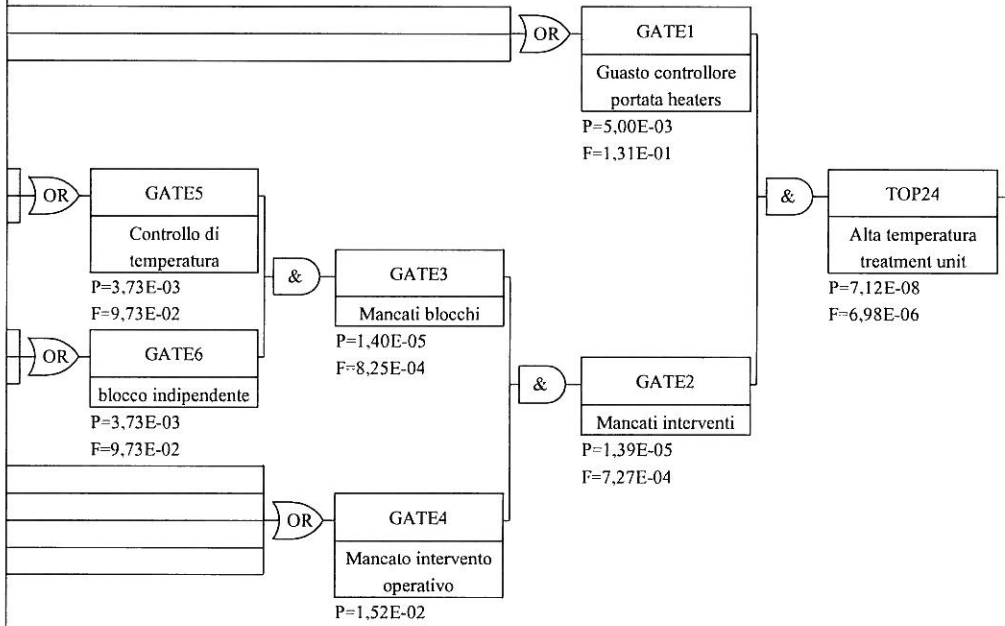
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
ERROR1 BASE1		Azione procedurata abituale Operazioni anno	6,00E+00	2,50E-01	1,00E-03 4,82E-01	- U
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
PT		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
PSV		Mancato interv. Valvola di sicurezza	2,98E-03	2,00E+00	2,97E-03	U
PT2		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
PAH		Manc. Interv. All. Alta press.	2,98E-03	1,00E+00	1,49E-03	U
MIOA		Mancato intervento operativo su allarme			1,00E-02	-
XV2		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 11.13.06
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\C15~1.2A\LOGAN\TOP23
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA PRESSIONE UNITÀ DI TRATTAMENTO

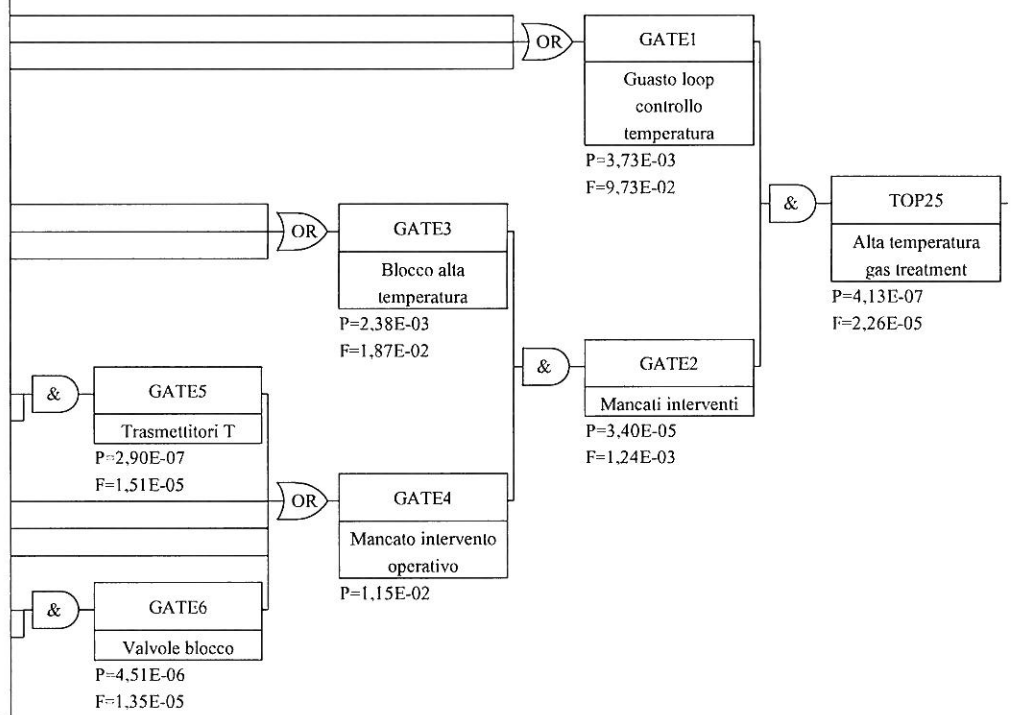
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
FT		Guasto trasm. Di flusso	4,73E-02	3,85E-02	1,82E-03	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
FV		Valvola di regolazione flusso	8,32E-02	3,85E-02	3,19E-03	R
TT		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
TV		Valvola di regolazione temperatura	8,32E-02	3,85E-02	3,19E-03	R
TT2		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
TV2		Valvola di regolazione temperatura	8,32E-02	3,85E-02	3,19E-03	R
TT		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
TAH		Manc. Interv. All. Alta temp.	2,98E-03	1,00E+00	1,49E-03	U
MIOA		Mancato intervento operativo su allarme			1,00E-02	-
TV		Valvola di regolazione temperatura	8,32E-02	3,85E-02	3,19E-03	R



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 11.25.01
Fault Tree File : I:\PROG\1201GA~1\ALLEGATI\C15~1.2A\LOGAN\TOP24
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA TEMPERATURA TREATMENT UNIT

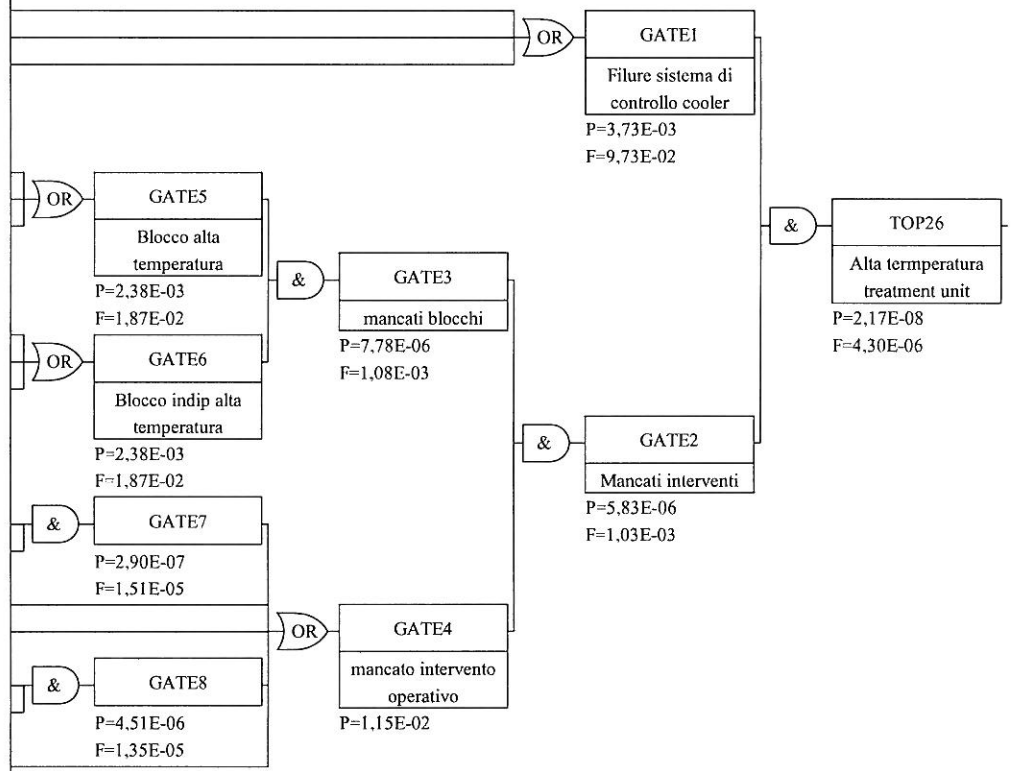
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
TT		Guasto trasm. di temp.	1.40E-02	3,85E-02	5,39E-04	R
PCSD		Computer di processo duale e ridondante	1.00E-04	1,00E-03	1.00E-07	R
TV		Valvola di regolazione temperatura	8,32E-02	3,85E-02	3,19E-03	R
TT2		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
TT		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
TT2		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
TAH		Manc. Interv. All. Alta temp.	2,98E-03	1,00E+00	1,49E-03	U
MIOA		Mancato intervento operativo su allarme	-	-	1,00E-02	-
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
XV2		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U



LOGAN Version 5.13 Serial No. 5111
 Date (dd-mm-yy): 02-03-12 Time: 11.37.12
 Fault Tree File : I:\PROGER\1201GA~1\ALLEGAT\1C15~1.2AL\LOGAN\TOP25
 Cutset Order: 6
 Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA TEMPERATURA GAS TREATMENT

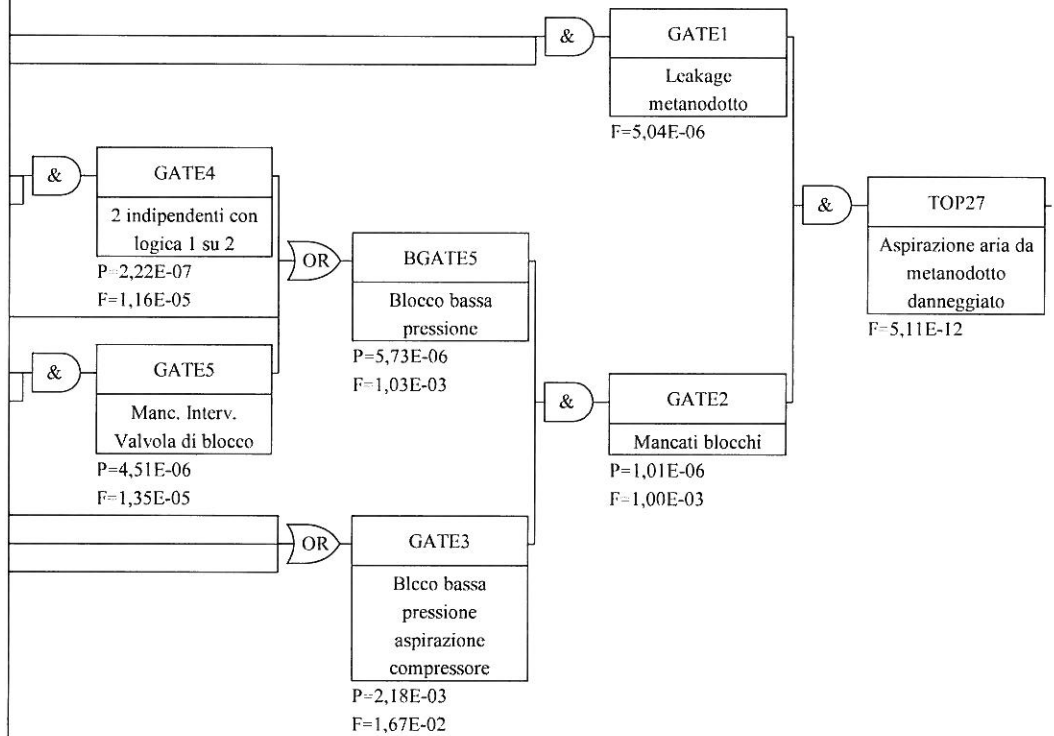
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
TT		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
TV		Valvola di regolazione temperatura	8,32E-02	3,85E-02	3,19E-03	R
TT1		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
TT2		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
XV2		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
TT1		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
TT2		Guasto trasm. di temp.	1,40E-02	3,85E-02	5,39E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
TAH		Manc. Interv. All. Alta temp.	2,98E-03	1,00E+00	1,49E-03	U
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
XV2		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
MIOA		Mancato intervento operativo su allarme			1,00E-02	-



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 11.42.52
Fault Tree File : I:\PROGERV\201GA~1\ALLEGATM\C15~1.2AL\LOGAN\TOP26
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA TERMPERATURA TREATMENT UNIT

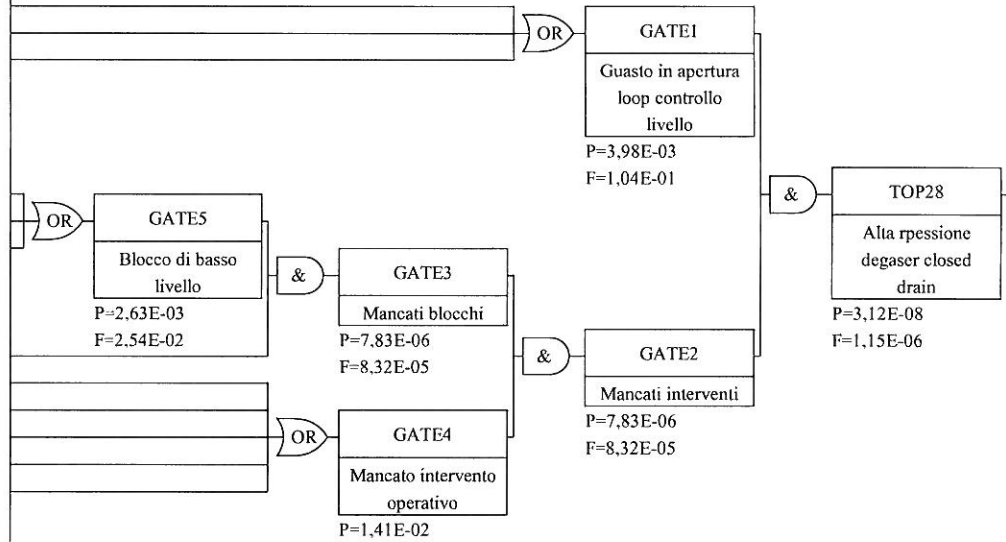
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
BASE1			7,50E-04			-
BASE2		Fattore utilizzo	5,00E-01	2,70E-02	6,72E-03	U
PT		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
PT2		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
XV2		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
PT3		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
INTE-S		Mancato arresto compressore	3,42E-03	1,00E+00	1,71E-03	U



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-04-12 Time: 12.38.07
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\C15~1.2A\LOGAN\TOP27
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ASPIRAZIONE ARIA DA METANODOTTO DANNEGGIATO

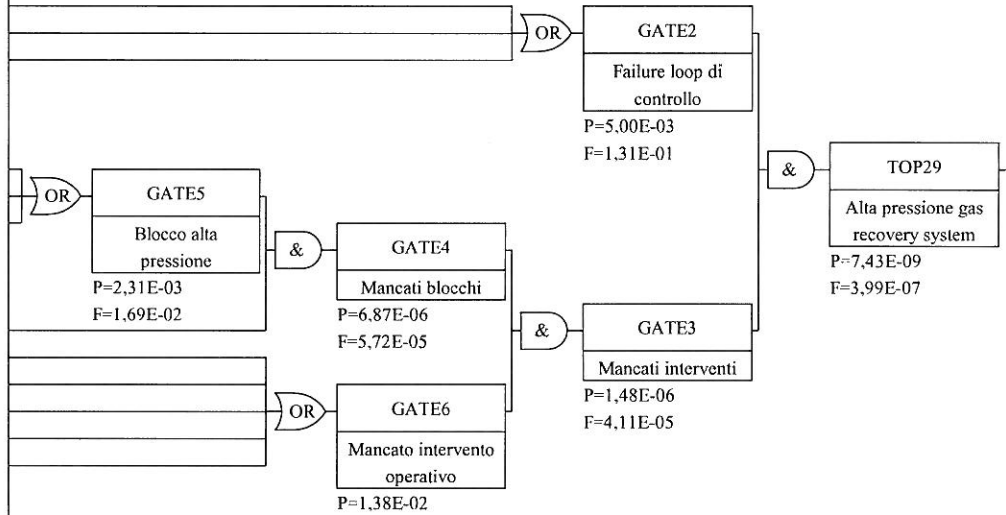
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
LT		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
LV		Valvola di regolazione portata	8,32E-02	3,85E-02	3,19E-03	R
LT2		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
PSV		Mancato interv. Valvola di sicurezza	2,98E-03	2,00E+00	2,97E-03	U
LT2		Guasto trasm. Di liv.	2,07E-02	3,85E-02	7,95E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
LAL		Manc. Interv. All. Basso liv.	2,98E-03	1,00E+00	1,49E-03	U
MIOA		Mancato intervento operativo su allarme			1,00E-02	-
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 12.04.29
Fault Tree File : I:\PROGERV\201GA~1\VALLEGAT\IC15~1.2A\LOGAN\TOP28
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA RPESSIONE DEGASER CLOSED DRAIN

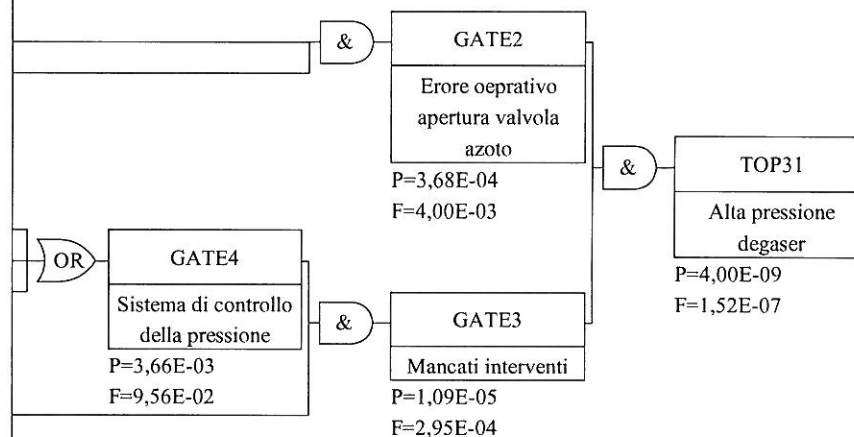
EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
FT		Guasto trasm. Di flusso	4,73E-02	3,85E-02	1,82E-03	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
FV		Valvola di regolazione flusso	8,32E-02	3,85E-02	3,19E-03	R
PT		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
XV		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U
PSV		Mancato interv. Valvola di sicurezza	2,98E-03	2,00E+00	2,97E-03	U
PT		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
DCS		Distributed control system	1,00E-03	1,00E-03	1,00E-06	R
PAH		Manc. Interv. All. Alta press.	2,98E-03	1,00E+00	1,49E-03	U
MIOA		Mancato intervento operativo su allarme	-	-	1,00E-02	-
XV2		Manc. Interv. Valvola di blocco	3,68E-03	1,00E+00	1,84E-03	U



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 09.57.16
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\C15~1.2A\LOGAN\TOP29
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA PRESSIONE GAS RECOVERY SYSTEM

EVENT NAME	DATA REF	DESCRIPTION	FAILURE RATE	Trep/ Ttest	PROB	R/U
ERROR1 BASE4		Azione procedurata abituale Operazioni anno	4,00E+00	2,50E-01	1,00E-03 3,68E-01	- U
PT		Guasto trasm. Di press.	1,23E-02	3,85E-02	4,71E-04	R
PCSD		Computer di processo duale e ridondante	1,00E-04	1,00E-03	1,00E-07	R
PV		Valvola di regolazione pressione	8,32E-02	3,85E-02	3,19E-03	R
PSV		Mancato interv. Valvola di sicurezza	2,98E-03	2,00E+00	2,97E-03	U



LOGAN Version 5.13 Serial No. 5111
Date (dd-mm-yy): 02-03-12 Time: 10.01.28
Fault Tree File : I:\PROGER\1201GA~1\ALLEGATI\C15~1.2\ALLOGAN\TOP31
Cutset Order: 6
Proof Tests : Simultaneous

FIGURE . FAULT TREE FOR ALTA PRESSIONE DEGASER