

ANEXO.VI- RESUMO RISKCURVES



RELATÓRIO DE SIMULAÇÃO

RISKCURVES Result checking

Scenario file : C:\AQR-CIP\C:\AQR-CIP\CIP.SCN
 Directory : C:\AQR-CIP
 Performed at : 02 jul 2009 15:11:07

Calculation settings:

Calculate FN-data (Y/N) YES
 Data for day, night or both (D/N/B) BOTH
 Skip unchanged scenario definitions (Y/N) NO

Release (scenario) file C:\AQR-CIP\CIP.SCN
 Population grid day file C:\AQR-CIP\CIP.GD1
 Population grid night file C:\AQR-CIP\CIP.GN1
 Ignition points file name
 Population concentrations file
 Dispersion & wind parameters data file C:\AQR-CIP\CIP.DPF
 Weather & wind probability distribution file C:\AQR-CIP\CIP.PRB
 Environment definition file C:\AQR-CIP\CIP.ENV
 Program parameters file C:\AQR-CIP\STANDARD.CPF
 Database file C:\AQR-CIP\STANDARD.RDB
 Population probability of presence.....

Include ignition point calculations NO
 Include Population concentrations NO
 Perform Onsite Societal Risk (OSR) calculations..... NO
 Perform Personal Individual Risk (PIR) calculations... NO

Perform injury risk calculations..... NO

CONDENSED LIST OF ERRORS AND WARNINGS

| | |
|----------------|-------------------------------|
| Scenario 1 OK | (INCENDIO NA SIDERURGICA) |
| Scenario 2 OK | (EXPLOSAO NA SIDERURGICA) |
| Scenario 3 OK | (DISP.NUVEM TOX.SIDERURGICA) |
| Scenario 4 OK | (INCENDIO-TERMO-C.L) |
| Scenario 5 OK | (EXPLOSAO-TERMO-C.L) |
| Scenario 6 OK | (DISP.NUVEM TOX.TERMO C.L) |
| Scenario 7 OK | (INCENDIO-TERMO-C.S) |
| Scenario 8 OK | (EXPLOSAO-TERMO-CS) |
| Scenario 9 OK | (INCENDIO-TERMO-GN) |
| Scenario 10 OK | (EXPLOSAO-TERMO-GN) |
| Scenario 11 OK | (INCENDIO-TERMINAL-COMB) |
| Scenario 12 OK | (EXPLOSAO-TERMINAL-COMB) |
| Scenario 13 OK | (INCENDIO-REFINARIA) |
| Scenario 14 OK | (EXPLOSAO-REFINARIA) |
| Scenario 15 OK | (DISP.NUVEM TOX.REFINARIA) |
| Scenario 16 OK | (INCENDIO-PORTO) |
| Scenario 17 OK | (EXPLOSAO-PORTO) |
| Scenario 18 OK | (INCENDIO-U.REGASEIFICACAO) |
| Scenario 19 OK | (EXPLOSAO-U.REGASEIFICACAO) |
| Scenario 20 OK | (INCENDIO-IND.METAL MEC) |
| Scenario 21 OK | (EXPLOSAO-IND.METAL MEC) |
| Scenario 22 OK | (INCENDIO-IND.QUIMICA) |
| Scenario 23 OK | (EXPLOSAO-IND.QUIMICA) |
| Scenario 24 OK | (DISP.NUVEM-TOX.-IND.QUIMICA) |
| Scenario 25 OK | (INCENDIO-CITYGATE) |
| Scenario 26 OK | (EXPLOSAO-CITYGATE) |
| Scenario 27 OK | (INCENDIO-IND.CIMENTO) |
| Scenario 28 OK | (EXPLOSAO-IND.CIMENTO) |
| Scenario 29 OK | (INCENDIO-GASODUTO) |
| Scenario 30 OK | (EXPLOSAO- GASODUTO) |

CHECKS COMPLETE

Nr. of scenarios : 30
Nr. of scenarios with error(s) : 0 (0.0 %)
Nr. of scenarios with Severe warning(s) : 0 (0.0 %)
Nr. of scenarios with warning(s) : 0 (0.0 %)
Nr. of scenarios OK : 30 (100.0 %)

RISKCURVES maximum consequence distances Version : 4.0.0.0194
Calculations performed at : 02 jul 2009 15:09:23
Directory to interface files : C:\AQR-CIP\C:\AQR-CIP\
Scenario file : C:\AQR-CIP\CIP.SCN

!! NOTE !!

Scenarios which have a consequence distance less than 1 meter are not shown here

| Scenario | Description | Maximum consequence distance [m] |
|----------|---|---|
| 1 | INCENDIO NA SIDERURGICA | 53 (Jetflame, CSP) |
| 2 | EXPLOSAO NA SIDERURGICA | 65 (Explosion, stab.class A, CSP) |
| 2 | EXPLOSAO NA SIDERURGICA | 75 (Explosion, stab.class B, CSP) |
| 2 | EXPLOSAO NA SIDERURGICA | 72 (Explosion, stab.class C, CSP) |
| 2 | EXPLOSAO NA SIDERURGICA | 74 (Explosion, stab.class D, CSP) |
| ----- | | |
| 2 | EXPLOSAO NA SIDERURGICA | 71 (Explosion, stab.class E, CSP) |
| 2 | EXPLOSAO NA SIDERURGICA | 62 (Explosion, stab.class F, CSP) |
| 3 | DISP.NUVEM TOX.SIDERURGICA | 111 (Toxic, stab.class A, CSP) |
| 3 | DISP.NUVEM TOX.SIDERURGICA | 113 (Toxic, stab.class B, CSP) |
| 3 | DISP.NUVEM TOX.SIDERURGICA | 219 (Toxic, stab.class C, CSP) |
| ----- | | |
| 3 | DISP.NUVEM TOX.SIDERURGICA | 328 (Toxic, stab.class D, CSP) |
| 3 | DISP.NUVEM TOX.SIDERURGICA | 762 (Toxic, stab.class E, CSP) |
| 3 | DISP.NUVEM TOX.SIDERURGICA | 4317 (Toxic, stab.class F, CSP) |
| 4 | INCENDIO-TERMO-C.L | 47 (Jetflame, TERMO A COMB.LIQUIDO) |
| 5 | EXPLOSAO-TERMO-C.L COMB.LIQUIDO) | 34 (Explosion, stab.class A, TERMO A |
| ----- | | |
| 5 | EXPLOSAO-TERMO-C.L COMB.LIQUIDO) | 34 (Explosion, stab.class B, TERMO A |
| 5 | EXPLOSAO-TERMO-C.L COMB.LIQUIDO) | 34 (Explosion, stab.class C, TERMO A |
| 5 | EXPLOSAO-TERMO-C.L COMB.LIQUIDO) | 34 (Explosion, stab.class D, TERMO A |
| 5 | EXPLOSAO-TERMO-C.L COMB.LIQUIDO) | 34 (Explosion, stab.class E, TERMO A |
| 5 | EXPLOSAO-TERMO-C.L COMB.LIQUIDO) | 34 (Explosion, stab.class F, TERMO A |
| ----- | | |
| 6 | DISP.NUVEM TOX.TERMO C.L COMB.LIQUIDO) | 107 (Toxic, stab.class A, TERMO A |
| 6 | DISP.NUVEM TOX.TERMO C.L COMB.LIQUIDO) | 106 (Toxic, stab.class B, TERMO A |
| 6 | DISP.NUVEM TOX.TERMO C.L COMB.LIQUIDO) | 108 (Toxic, stab.class C, TERMO A |
| 6 | DISP.NUVEM TOX.TERMO C.L COMB.LIQUIDO) | 109 (Toxic, stab.class D, TERMO A |
| 6 | DISP.NUVEM TOX.TERMO C.L COMB.LIQUIDO) | 155 (Toxic, stab.class E, TERMO A |
| ----- | | |
| 6 | DISP.NUVEM TOX.TERMO C.L COMB.LIQUIDO) | 1492 (Toxic, stab.class F, TERMO A |
| 7 | INCENDIO-TERMO-C.S | 82 (Explosion, stab.class A, PILHA CARVAO) |
| 7 | INCENDIO-TERMO-C.S | 100 (Explosion, stab.class B, PILHA CARVAO) |
| 7 | INCENDIO-TERMO-C.S | 81 (Explosion, stab.class C, PILHA CARVAO) |
| 7 | INCENDIO-TERMO-C.S | 77 (Explosion, stab.class D, PILHA CARVAO) |
| ----- | | |
| 7 | INCENDIO-TERMO-C.S | 70 (Explosion, stab.class E, PILHA CARVAO) |

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| 7 | INCENDIO-TERMO-C.S | 61 (Explosion, stab.class F, PILHA CARVAO) |
| 8 | EXPLOSAO-TERMO-CS | 30 (Explosion, stab.class A, CALDEIRA) |
| 8 | EXPLOSAO-TERMO-CS | 30 (Explosion, stab.class B, CALDEIRA) |
| 8 | EXPLOSAO-TERMO-CS | 30 (Explosion, stab.class C, CALDEIRA) |
| ----- | | |
| 8 | EXPLOSAO-TERMO-CS | 30 (Explosion, stab.class D, CALDEIRA) |
| 8 | EXPLOSAO-TERMO-CS | 30 (Explosion, stab.class E, CALDEIRA) |
| 8 | EXPLOSAO-TERMO-CS | 30 (Explosion, stab.class F, CALDEIRA) |
| 9 | INCENDIO-TERMO-GN | 26 (Jetflame, TUBOVIA) |
| 10 | EXPLOSAO-TERMO-GN | 41 (Explosion, stab.class A, TUBOVIA) |
| ----- | | |
| 10 | EXPLOSAO-TERMO-GN | 54 (Explosion, stab.class B, TUBOVIA) |
| 10 | EXPLOSAO-TERMO-GN | 18 (Explosion, stab.class C, TUBOVIA) |
| 10 | EXPLOSAO-TERMO-GN | 18 (Explosion, stab.class D, TUBOVIA) |
| 10 | EXPLOSAO-TERMO-GN | 17 (Explosion, stab.class E, TUBOVIA) |
| 10 | EXPLOSAO-TERMO-GN | 16 (Explosion, stab.class F, TUBOVIA) |
| ----- | | |
| 11 | INCENDIO-TERMINAL-COMB | 28 (Poolfire, TANQUE) |
| 12 | EXPLOSAO-TERMINAL-COMB | 78 (Explosion, stab.class A, TANQUE) |
| 12 | EXPLOSAO-TERMINAL-COMB | 78 (Explosion, stab.class B, TANQUE) |
| 12 | EXPLOSAO-TERMINAL-COMB | 78 (Explosion, stab.class C, TANQUE) |
| 12 | EXPLOSAO-TERMINAL-COMB | 78 (Explosion, stab.class D, TANQUE) |
| ----- | | |
| 12 | EXPLOSAO-TERMINAL-COMB | 78 (Explosion, stab.class E, TANQUE) |
| 12 | EXPLOSAO-TERMINAL-COMB | 78 (Explosion, stab.class F, TANQUE) |
| 13 | INCENDIO-REFINARIA | 28 (Poolfire, AREA INTERNA) |
| 14 | EXPLOSAO-REFINARIA | 68 (Explosion, stab.class A, AREA INTERNA) |
| 14 | EXPLOSAO-REFINARIA | 78 (Explosion, stab.class B, AREA INTERNA) |
| ----- | | |
| 14 | EXPLOSAO-REFINARIA | 75 (Explosion, stab.class C, AREA INTERNA) |
| 14 | EXPLOSAO-REFINARIA | 77 (Explosion, stab.class D, AREA INTERNA) |
| 14 | EXPLOSAO-REFINARIA | 74 (Explosion, stab.class E, AREA INTERNA) |
| 14 | EXPLOSAO-REFINARIA | 65 (Explosion, stab.class F, AREA INTERNA) |
| 15 | DISP.NUVEM TOX.REFINARIA | 181 (Toxic, stab.class A, AREA INTERNA) |
| ----- | | |
| 15 | DISP.NUVEM TOX.REFINARIA | 140 (Toxic, stab.class B, AREA INTERNA) |
| 15 | DISP.NUVEM TOX.REFINARIA | 305 (Toxic, stab.class C, AREA INTERNA) |
| 15 | DISP.NUVEM TOX.REFINARIA | 465 (Toxic, stab.class D, AREA INTERNA) |
| 15 | DISP.NUVEM TOX.REFINARIA | 1047 (Toxic, stab.class E, AREA INTERNA) |
| 15 | DISP.NUVEM TOX.REFINARIA | 5284 (Toxic, stab.class F, AREA INTERNA) |
| ----- | | |
| 16 | INCENDIO-PORTO | 28 (Poolfire, AREA INTERNA) |
| 17 | EXPLOSAO-PORTO | 1 (Explosion, stab.class A, AREA INTERNA) |
| 17 | EXPLOSAO-PORTO | 1 (Explosion, stab.class B, AREA INTERNA) |
| 17 | EXPLOSAO-PORTO | 1 (Explosion, stab.class C, AREA INTERNA) |
| 17 | EXPLOSAO-PORTO | 1 (Explosion, stab.class D, AREA INTERNA) |
| ----- | | |
| 17 | EXPLOSAO-PORTO | 1 (Explosion, stab.class E, AREA INTERNA) |
| 17 | EXPLOSAO-PORTO | 1 (Explosion, stab.class F, AREA INTERNA) |
| 18 | INCENDIO-U.REGASEIFICACAO | 39 (Jetflame, AREA INTERNA) |
| 19 | EXPLOSAO-U.REGASEIFICACAO | 26 (Explosion, stab.class A, AREA INTERNA) |
| 19 | EXPLOSAO-U.REGASEIFICACAO | 26 (Explosion, stab.class B, AREA INTERNA) |

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| 19 | EXPLOSAO-U.REGASEIFICACAO INTERNA) | 26 | (Explosion, stab.class C, AREA |
| 19 | EXPLOSAO-U.REGASEIFICACAO INTERNA) | 26 | (Explosion, stab.class D, AREA |
| 19 | EXPLOSAO-U.REGASEIFICACAO INTERNA) | 26 | (Explosion, stab.class E, AREA |
| 19 | EXPLOSAO-U.REGASEIFICACAO INTERNA) | 26 | (Explosion, stab.class F, AREA |
| 20 | INCENDIO-IND.METAL MEC | 28 | (Poolfire, AREA INTERNA) |
| ----- | | | |
| 21 | EXPLOSAO-IND.METAL MEC INTERNA) | 117 | (Explosion, stab.class A, AREA |
| 21 | EXPLOSAO-IND.METAL MEC INTERNA) | 139 | (Explosion, stab.class B, AREA |
| 21 | EXPLOSAO-IND.METAL MEC INTERNA) | 121 | (Explosion, stab.class C, AREA |
| 21 | EXPLOSAO-IND.METAL MEC INTERNA) | 121 | (Explosion, stab.class D, AREA |
| 21 | EXPLOSAO-IND.METAL MEC INTERNA) | 113 | (Explosion, stab.class E, AREA |
| ----- | | | |
| 21 | EXPLOSAO-IND.METAL MEC INTERNA) | 53 | (Explosion, stab.class F, AREA |
| 22 | INCENDIO-IND.QUIMICA | 28 | (Poolfire, AREA INTERNA) |
| 23 | EXOLOS AO-IND.QUIMICA INTERNA) | 133 | (Explosion, stab.class A, AREA |
| 23 | EXOLOS AO-IND.QUIMICA INTERNA) | 147 | (Explosion, stab.class B, AREA |
| 23 | EXOLOS AO-IND.QUIMICA INTERNA) | 133 | (Explosion, stab.class C, AREA |
| ----- | | | |
| 23 | EXOLOS AO-IND.QUIMICA INTERNA) | 132 | (Explosion, stab.class D, AREA |
| 23 | EXOLOS AO-IND.QUIMICA INTERNA) | 121 | (Explosion, stab.class E, AREA |
| 23 | EXOLOS AO-IND.QUIMICA INTERNA) | 106 | (Explosion, stab.class F, AREA |
| 24 | DISP.NUVEM-TOX.-IND.QUIMICA INTERNA) | 111 | (Toxic, stab.class A, AREA |
| 24 | DISP.NUVEM-TOX.-IND.QUIMICA INTERNA) | 99 | (Toxic, stab.class B, AREA |
| ----- | | | |
| 24 | DISP.NUVEM-TOX.-IND.QUIMICA INTERNA) | 144 | (Toxic, stab.class C, AREA |
| 24 | DISP.NUVEM-TOX.-IND.QUIMICA INTERNA) | 207 | (Toxic, stab.class D, AREA |
| 24 | DISP.NUVEM-TOX.-IND.QUIMICA INTERNA) | 505 | (Toxic, stab.class E, AREA |
| 24 | DISP.NUVEM-TOX.-IND.QUIMICA INTERNA) | 3527 | (Toxic, stab.class F, AREA |
| 25 | INCENDIO-CITYGATE | 39 | (Jetflame, DUTO) |
| ----- | | | |
| 26 | EPLOSAO-CITYGATE | 26 | (Explosion, stab.class A, DUTO) |
| 26 | EPLOSAO-CITYGATE | 26 | (Explosion, stab.class B, DUTO) |
| 26 | EPLOSAO-CITYGATE | 26 | (Explosion, stab.class C, DUTO) |
| 26 | EPLOSAO-CITYGATE | 26 | (Explosion, stab.class D, DUTO) |

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| 26 | EPLOSAO-CITYGATE | 26 (Explosion, stab.class E, DUTO) |
| 26 | EPLOSAO-CITYGATE | 26 (Explosion, stab.class F, DUTO) |
| 27 | INCENDIO-IND.CIMENTO | 28 (Poolfire, AREA INTERNA) |
| 28 | EXPLOSAO-IND.CIMENTO INTERNA) | 99 (Explosion, stab.class A, AREA INTERNA) |
| 28 | EXPLOSAO-IND.CIMENTO INTERNA) | 116 (Explosion, stab.class B, AREA INTERNA) |
| 28 | EXPLOSAO-IND.CIMENTO INTERNA) | 101 (Explosion, stab.class C, AREA INTERNA) |
| 28 | EXPLOSAO-IND.CIMENTO INTERNA) | 102 (Explosion, stab.class D, AREA INTERNA) |
| 28 | EXPLOSAO-IND.CIMENTO INTERNA) | 95 (Explosion, stab.class E, AREA INTERNA) |
| 28 | EXPLOSAO-IND.CIMENTO INTERNA) | 53 (Explosion, stab.class F, AREA INTERNA) |
| 29 | INCENDIO-GASFOR | 39 (Jetflame, DUTO) |
| 30 | EXPLOSAO-GASFOR | 26 (Explosion, stab.class A, DUTO) |
| 30 | EXPLOSAO-GASODUTO | 26 (Explosion, stab.class B, DUTO) |
| 30 | EXPLOSAO-GASODUTO | 26 (Explosion, stab.class C, DUTO) |
| 30 | EXPLOSAO-GASODUTO | 26 (Explosion, stab.class D, DUTO) |
| 30 | EXPLOSAO-GASODUTO | 26 (Explosion, stab.class E, DUTO) |
| 30 | EXPLOSAO-GASODUTO | 26 (Explosion, stab.class F, DUTO) |

Scenarios sorted to maximum consequence distance

!! NOTE !!

Scenarios which have a consequence distance less than 1 meter are not shown here

| Scenario | Description | Maximum consequence distance [m] |
|----------|---|---|
| 15 | DISP.NUVEM TOX.REFINARIA | 5284 (Toxic, stab.class F, AREA INTERNA) |
| 3 | DISP.NUVEM TOX.SIDERURGICA | 4317 (Toxic, stab.class F, CSP) |
| 24 | DISP.NUVEM-TOX.-IND.QUIMICA INTERNA) | 3527 (Toxic, stab.class F, AREA INTERNA) |
| 6 | DISP.NUVEM TOX.TERMO C.L COMB.LIQUIDO) | 1492 (Toxic, stab.class F, TERMO A COMB.LIQUIDO) |
| 23 | EXOLOSAO-IND.QUIMICA INTERNA) | 147 (Explosion, stab.class B, AREA INTERNA) |
| 21 | EXPLOSAO-IND.METAL MEC INTERNA) | 139 (Explosion, stab.class B, AREA INTERNA) |
| 28 | EXPLOSAO-IND.CIMENTO INTERNA) | 116 (Explosion, stab.class B, AREA INTERNA) |
| 7 | INCENDIO-TERMO-C.S | 100 (Explosion, stab.class B, PILHA CARVAO) |
| 14 | EXPLOSAO-REFINARIA | 78 (Explosion, stab.class B, AREA INTERNA) |
| 12 | EXPLOSAO-TERMINAL-COMB | 78 (Explosion, stab.class A, TANQUE) |
| 2 | EXPLOSAO NA SIDERURGICA | 75 (Explosion, stab.class B, CSP) |
| 10 | EXPLOSAO-TERMO-GN | 54 (Explosion, stab.class B, TUBOVIA) |
| 1 | INCENDIO NA SIDERURGICA | 53 (Jetflame, CSP) |
| 4 | INCENDIO-TERMO-C.L | 47 (Jetflame, TERMO A COMB.LIQUIDO) |



| | | |
|-------------|---------------------------|---|
| 18 | INCENDIO-U.REGASEIFICACAO | 39 (Jetflame, AREA INTERNA) |
| ----- | | |
| 25 | INCENDIO-CITYGATE | 39 (Jetflame, DUTO) |
| 29 | INCENDIO-GASFOR | 39 (Jetflame, DUTO) |
| 5 | EXPLOSAO-TERMO-C.L | 34 (Explosion, stab.class A, TERMO A |
| COMB.LIQUID | | |
| 8 | EXPLOSAO-TERMO-CS | 30 (Explosion, stab.class A, CALDEIRA) |
| 11 | INCENDIO-TERMINAL-COMB | 28 (Poolfire, TANQUE) |
| ----- | | |
| 13 | INCENDIO-REFINARIA | 28 (Poolfire, AREA INTERNA) |
| 16 | INCENDIO-PORTO | 28 (Poolfire, AREA INTERNA) |
| 20 | INCENDIO-IND.METAL MEC | 28 (Poolfire, AREA INTERNA) |
| 22 | INCENDIO-IND.QUIMICA | 28 (Poolfire, AREA INTERNA) |
| 27 | INCENDIO-IND.CIMENTO | 28 (Poolfire, AREA INTERNA) |
| ----- | | |
| 26 | EPLOSAO-CITYGATE | 26 (Explosion, stab.class A, DUTO) |
| 30 | EXPLOSAO-GASFOR | 26 (Explosion, stab.class A, DUTO) |
| 19 | EXPLOSAO-U.REGASEIFICACAO | 26 (Explosion, stab.class A, AREA |
| INTERNA) | | |
| 9 | INCENDIO-TERMO-GN | 26 (Jetflame, TUBOVIA) |
| 17 | EXPLOSAO-PORTO | 1 (Explosion, stab.class A, AREA INTERNA) |
| ----- | | |