

Project : 70942-Scenario 7

Session 1

INPUT

Model..... : Turbulent free jet (141)
Version... : 5.08
Reference.. : Yellow Book (CPR-14E), 3rd edition
Case description..... : 1997, Chapter 4 and Critical
Chemical name..... : Turbulent Buoyant Jets, Chen & Rodi
Type of release.... : 70942-Sc7-Release
Pipeline length... : Methane
Pipeline diameter... : Release from vessel through (a hole
Pipeline roughness... : in) pipe
Hole diameter..... : 1 m
Hole rounding..... : 406.4 mm
Discharge coefficient... : 0.045 mm
Initial temperature in vessel... : Rounded edges
Initial (absolute) pressure in vessel... : 1 -
Ambient temperature... : 25 °C
Axial distance from release (Sd)... : 76 Bar
Radial distance (Yd)... : 25 °C
Predefined concentration... : 25 m
Threshold concentration... : LEL (Lower Explosion Limit)
Contour plot accuracy... : 33353 mg/m³
X-coordinate of release... : 1 %
Y-coordinate of release... : 0 m
Predefined wind direction... : 0 m
Wind comes from (West = 180 degrees)... : User defined
Wind comes from (West = 180 degrees)... : 180 deg

RESULTS

Initial source strength... : 66.596 kg/s
Initial density of the gas... : 49.185 kg/m³
Concentration at (Sd,Yd)... : 2.6665E06 mg/m³
Jet velocity at (Sd,Yd)... : 26.938 m/s
Temperature at (Sd)... : 25 °C
Limit of momentum region... : 45.971 m
Froude number... : 61087

----- END OF SESSION 1 -----

Administrative & version data:

Main program (production date) : Effects (15 Jan 2008 10:23:00)
Run mode (complexity level) : Expert
Model name : Turbulent free jet (141)
Date of this calculation : 29 May 2013 09:19:38
License owner : Marco
Calculation performed by : Marco
Software library version : 7.5.2.0836
Model driver version(s) : 5.08
Model driver last modification : 29 Nov 2007
Model executable version(s) : N/A
Session nr. : 1
References : Yellow Book (CPR-14E), 3rd edition 1997, Chapter 4 and Critical
Turbulent Buoyant Jets, Chen & Rodi
Project file name : "70942-Scenario 7.alf"
Chemical database used : "Purple Book (1999).rdb" (04 dic 2007 15:00:44)
Environment database used : "Purple Book (1999).Env" (20 set 2012 15:14:08)
System database used : "Purple Book (1999).SPF" (20 set 2012 15:12:42)
Dispersion database used : "Purple Book (1999).dpf" (30 lug 2007 12:00:00)
Map background file used : "70942-Scenario 7.gbf" (01 gen 0 00:00:00)
Project file directory : "Z:\Documenti\70000\70942 PROGER Fiume Treste NOF PmagPi\Elaborati\7"
Chemical database directory : "C:\Program Files\TNO\Effects 75\Shared data\Datasets"
Environment database directory : "C:\Program Files\TNO\Effects 75\Shared data\Datasets"
System database directory : "C:\Program Files\TNO\Effects 75\Shared data\Datasets"
Dispersion database directory : "C:\Program Files\TNO\Effects 75\Shared data\Datasets"
Map background directory : "Z:\Documenti\70000\70942 PROGER Fiume Treste NOF PmagPi\Elaborati\7"

End of administrative & version data: