

Discharge Report

Workspace: 72341-2FSRURegas

Study: FSRU in rigassificazione

Equipment Item: 7R Linee mandata pompe LNG Feed e collettore GNL

72341-2FSRURegas\FSRU in rigassificazione\7R Linee mandata pompe LNG Feed e collettore GNL

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (Leak) : 70mm

72341-2FSRURegas\FSRU in rigassificazione\7R Linee mandata pompe LNG Feed e collettore GNL\70mm

Weather: Category 2/F

INPUT DATA

Inventory data

Mass in vessel	13095,7	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	9	bar
Initial temperature	-160	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	70	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	66,9133	kg/s
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Release duration 195,712 s

Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
Temperature	-160,238	degC
Liquid mass fraction	1	fraction
Velocity at vena contracta (at exit for pipe releases)	64,1908	m/s
Discharge coefficient	0,62	

Final Data (after atmospheric expansion)

Temperature	-160,955	degC
Liquid mass fraction	0,995238	fraction
Droplet diameter	274,197	um
Expanded diameter	0,0795224	m
Velocity	64,1908	m/s

Weather: Category 5/D

INPUT DATA

Inventory data

Mass in vessel	13095,7	kg
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Stagnation Data (upstream end for long pipe)

Initial pressure (gauge)	9	bar
Initial temperature	-160	degC
Fluid state	Non-saturated liquid	

Scenario data

Phase to be released	Liquid	
Tank head	0	m
Hole diameter	70	mm
Discharge coefficient	0,62	fraction

OUTPUT DATA

Mass flow rate	66,9133	kg/s
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Orifice or pipe exit data (before atmospheric expansion)

Pressure	1,01325	bar
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Velocity at vena contracta (at exit for pipe releases)	64,1908	m/s
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Final Data (after atmospheric expansion)

Temperature	-160,955	degC
Liquid mass fraction	0,995238	fraction
Droplet diameter	274,197	um
Expanded diameter	0,0795224	m



Velocity	64,1908	m/s
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