ITERO

Bijlage 16 "diffuse emissiebronnen"

Date : 31/03/2023
Owner : SS
Revision : 0.2

		Flensverbindingen / Flange connections	Method	Method	Pompen / compressoren / roerwerken (seals)	Method	Method	Afsluiter / Valves	Method	Method	Overdrukventiel / Safety valves	Method	Method	Open einden (drains / vents)	Method	Method	Monsternamepunten / Sample points	Method	Method	Opmerkingen / Remarks	
Procesgroep / proces group	Beschrijving / Description	F	2004	2022	P	2004	2022	A	2004	2022	S	2004	2022	O	2004	2022	M	2004	2022		Fase / Phase
201	Pyrolyse reactor	16	29,28	0,592	0	0	0	4	23,88	0	0	0	0	0	0	0	0				Gas / vloeistof
301	Condensatie sectie / Condensation	77	140,91	2,849	3	59,7	0	24	143,3	0	0	0	0	6	10,2	0,534	3	45	0,6		Gas / vloeistof
302	Condensatie sectie / Condensation	84	153,72	3,108	3	59,7	0	22	131,3	0	0	0	0	7	11,9	0,623	3	45	0,6		Gas / vloeistof
303	Koolwaterstoffen recovery unit / Hydrocarbons recovery unit	72	131,76	0	0	0	0	14	3,22	2,1	0	0	0	10	17	0	0			Initial 4 pumps, reduced to 0 as the we will use magnetic coupled pumps	Vloeistof
304	Koolwaterstoffen recovery unit / Hydrocarbons recovery unit	114	208,62	0	0	0	0	25	5,75	3,75	6	0	0	22	37,4	0	0			Initial 8 pumps, reduced to 0 as the we will use magnetic coupled pumps	Vloeistof
305	Koolwaterstoffen recovery unit / Hydrocarbons recovery unit	82	150,06	0	0	0	0	34	7,82	5,1	0	0	0	18	30,6	0	0				Vloeistof
306	Koolwaterstoffen recovery unit / Hydrocarbons recovery unit	61	111,63	0	0	0	0	10	2,3	1,5	3	0	0	12	20,4	0	0			Initial 3 pumps, reduced to 0 as the we will use magnetic coupled pumps	Vloeistof
307	Opslag koolwaterstoffen / Storage hydrocarbons	74	135,42	0	2	39,8	0,03	38	8,74	5,7	0	0	0	18	30,6	0	2	30	0	Initial 4 pumps, reduced to 0 as the we will use magnetic coupled pumps	Vloeistof
308	Opslag koolwaterstoffen / Storage hydrocarbons	74	135,42	0	2	39,8	0,03	38	8,74	5,7	0	0	0	18	30,6	0	2	30	0	Initial 4 pumps, reduced to 0 as the we will use magnetic coupled pumps	Vloeistof
309	CIP aanmaakinstallatie / CIP preparation	38	69,54	0	1	19,9	0,015	7	1,61	1,05	0	0	0	6	10,2	0	0			Initial 1 pumps, reduced to 0 as the we will use magnetic coupled pumps	Vloeistof
401	Scrubber unit	57	104,31	2,109	4	34,48	0	11	65,67	0	2	208	0	4	6,8	0,356	1	15	0,2		Gas / vloeistof
402	Scrubber unit	57	104,31	2,109	4	34,48	0	11	65,67	0	2	208	0	4	6,8	0,356	1	15	0,2		Gas / vloeistof
403	Flare systeem / Flare system	35	64,05	0	1	0	0	5	29,85	1,1	1	104	4	7	11,9	0	0				Gas
404	Product gasopslag / Product gas storage	112	204,96	0	5	912	10,5	34	203	7,48	2	208	8	27	45,9	0	1	15	0,2		Gas
501	Energie systeem / Energy generation	9	16,47	0	0	0	0	2	11,94	0,44	0	0	0	0	0	0	0				Gas
601	Afgasbehandelingssysteem	42	76,86	0	2	228	4,2	4	23,88	0,88	1	104	4	3	5,1	0	2	30	0,4		Gas
701	Brand- & drinkwater systeem / Fire & Potable water system																			Not applicable, fire and potable water	
702	Oppervlaktewater systeem / Raw water system																			Not applicable, raw water	
704	Stikstof systeem / Nitrogen system																			Not applicable, nitrogen	
705	Perslucht systeem / Plant air system																			Not applicable, plant & instrument air	
706	Gas systeem / Gas storage system	35	64,05	0	1	0	0	10	59,7	2,2	2	208	8	0	0	0	0			Depending on chosen system, either LNG or LPG. Preferable for now LNG	Gas
707	Koelwater systeem / Cooling water system																			Not applicable, cooling water system	
708	Gekoeld water systeem / Chilled water system																			Not applicable, chilled water system	
709	Hete olie systeem / Hot oil system	102	186,66	0	0	0	0	39	8,97	5,85	0	0	0	14	23,8	0	0			Initial 2 pumps, reduced to 0 as the we will use magnetic coupled pumps	Vloeistof
710	Olie houdende opslag / Oily sewer system	27	49,41	0	2	39,8	7,6	8	1,84	1,2	0	0	0	6	10,2	0	0				Vloeistof
711	Tempered water systeem / Tempered water system																			Not applicable, tempered water system	
712	Heet water systeem / Hot water system																			Not applicable, hot water system	
713	Diesel & CIP opslag / Diesel & CIP storage	52	95,16	0	2	39,8	7,6	8	1,84	1,2	0	0	0	8	13,6	0	0				Vloeistof
			2232,6	**10,767**		**1507,5**	**29,98**		**809**	**45,25**		**1040**	**24**		**323**	**1,869**		**225**	**2,2**		

Totaal:

	gram/u	ton/jaar
Diffuse emissies en emissies bij op- en overslag Handboek emissiefactoren 2004	6137	49
Diffuse emissies en emissies bij op- en overslag Handboek emissiefactoren 2022	114	0,9

Diffuse emissies en emissies bij op- en overslag Handboek emissiefactoren 2004	Emissiefactor [g/uur]		
Apparaat	Gas/damp [1]	Lichte vloeistof [2]	Zware vloeistof [3]
Compressor	228	0	0
Pomp	0	19,9	8,62
Roerwerk	0	19,9	19,9
Veiligheidsklep	104	0	0
Klep, afsluiter	5,97	4,03	0,23
Open eindeleiding	1,7	1,7	1,7
Flenzen	1,83	1,83	1,83
Monsternamepunt	15	15	15

*1 - Gas or vapour under procesconditions
*2 - Low boiling liquid with a vapour pressure > 300 Pa at 20 deg C
*3 - High boiling liquid with a vapour pressure < 300 Pa at 20 deg C

2022	Emissiefactor [g/uur]		
Apparaat	Gas	Vloeistof	Gas / Vloeistof
Compressor	2,1	0	0
Pomp	0	3,8	0
Roerwerk	0	0,015	0
Veiligheidsklep	4	0	0
Monsternamepunt	0	0	0,2
Klep, afsluiter	0,22	0,15	0
Open einde	0	0	0,089
Flens, fitting	0	0	0,037