

□□□□

—  
NO.

—  
□□□ :  
**08 AUG, 2019**

—  
□□□ :  
□□□ □□□

## EU MRV, IMO DCS □□ □□ □□ □

XML, BDN Summary, Collect data Summary

100

# 1. BDN Summary

선박연료유수급현황 BDN SUMMARIES										
IMO Number	0999/U									
연도수급연도 Calendar year	2019									
운항일자 Date of Operation (YYYY-mm-dd)	경유기지 호점	경유국가 LNU	경유국명 HNU	포장유 LPG(P)	수송 LPG(B)	액화증류유 LNG	석유유 Methanol	에탄유 Ethanol	에탄유 Other(CS)	설명 Description
1) 연도별 수급량 (Bunker Q'ty supplied)										1) 연도별 수급량 (Bunker Q'ty supplied)
2019-01-06	148.2		408.4							
2019-02-09	148.3		408.5							
2019-03-11	148.1		408.6							
2) 연도별 수급량 (Annual Supply Amount)										2) 연도별 수급량 (Annual Supply Amount)
연도별 수급량	445.1	0	1183.5	0	0	0	0	0	0	

- 1) IMO NO : General data
- 2) 연도별 수급량 : 연도별 수급량
- 3) 연도별 수급량 : Bunkering
- 4) 연도별 수급량 : 연도별 수급량
- 5) 연도별 수급량 :

# 1. BDN Summary

2) 석유를 보유한 배의 보정 Correction for the tank oil remaining (총부수용량 기준으로 계산된 석유량과 실제 석유량 간의 차이를 조정하는 것)								
2018-01-01	700.1	0	2000.2	0	0	0	0	0
2018-12-31	800.1	0	1000.1	0	0	0	0	0
■ 정기적 보유량 차이로 인한 부수용량 기준으로 계산된 석유량 와 실제 석유량 간의 차이 All corrections	100.1	0	1000.4	0	0	0	0	0
The difference in the amount of the remaining tank oil at the beginning and at the end of the review period.								
3) 석유를 사용한 배의 보정 Other corrections (예: 배수용량을 업데이트, 충전제스(BOU) 사용량 등)								
2018-12-31	-100.1	0	-100.2	0	0	0	0	0
■ 정기적 보유량 차이 외부 다른 보정	-100.1	0	-100.2	0	0	0	0	0
Any Tank Oil quantity update or other quantity used for tank updating in tank.								
연간 연료비 계산 (Annual Fuel Consumption)								
연간 연료비 사용량 Annual Fuel Consumption (2+3+4)	391.0	0	2330.1	0	0	0	0	0

## 2) 부수용량 보정

- 부수용량 보정
- Export 부수용량 보정

## 3) 부수용량 보정

- 부수용량 보정 (de-bunkering)
- 부수용량 - (부수용량) 부수용량 .

## 부수용량 보정

- 1+2+3 부수용량

# 1. BDN Summary

## • 작성 이시

① 운행일자 Date of operation (연도-월-일) (YYYY-mm-dd)	② 연료유 종류/질량(톤) Fuel Oil Type/Mars (Motive oil)								③ 비고 Description
	제조주 제조일 Manufacturer Manufacture Date	경질유 LPG	중질유 HFO	드로유 DFO/GFO	부탄 BTX	비료용유 Fertilizer Fertilizer oil	액화수 LNG	기타 Others	
<b>i) 연료유 수급량 (Refined Qty supply)</b>									
2018-08-06	990.5	0	0	0	0	0	0	0	
2018-08-07	990.5	0	0	0	0	0	0	0	
2018-08-08	990.5	0	0	0	0	0	0	0	
<b>④</b>									
⑤ 연료유 수급량 소계 Annual Supply account	198.1	0	206.8	0	0	0	0	0	
<b>ii) 연료유 보류 일정 및 차입 대금 (Correction for the tank of remaining fuel and借入款項)</b>									
2018-08-01	990.5	0	100.4	0	0	0	0	0	
2018-08-01	990.5	0	100.4	0	0	0	0	0	
⑥ 연료유 보류 일정 및 차입 대금 Correction for the tank of remaining fuel and借入款項	130	0	100.4	0	0	0	0	0	The difference is the amount of the remaining tank oil to be returned and the date collected paid.
<b>iii) 연료유 사용량의 차이 (Difference in fuel consumption)</b> (예시 : 연료유 수령 양 측정, 증기기 가스(BDG) 사용 양 등)									
2018-07-27	0.0	0	-0.1	0	0	0	0	0	0.0 ex) Unrefined Qty to off-take recipient quality for tank inspection task.
<b>⑦</b>									
⑧ 연료유 사용량 Annual Fuel Consumption (①+②+③)	434.6	0	3215.7	0	0	0	0	0	
<b>연간 연료유 사용량 Annual Fuel Consumption</b>									

## • 작성 방법

상국	작성(입력) 방법
① 운행일자 Date of operation (연도-월-일) (YYYY-mm-dd)	"www-mm-dd" 순으로 입력
② 연료유 종류/질량(톤) Fuel Oil Type/Mars (Motive oil)	숫자 입력(소수점 첫째자리까지)
③ 비고 Description	설명 입력(필요 시)
④ 연간 수급량 소개 Annual Supply account	연료수급처별 수급량 합계 시 자동계산
⑤ 연료유 보유 진량 보정 Correction for the tank of remaining fuel and借入款項	사과일과 준교일 진량을 입력 시 자동계산
⑥ 연간 보침량 소개 Annual保蔵量 account	<ul style="list-style-type: none"> <li>연료유 양을 시 양복량을マイナス(-)값으로 입력 (소수점 첫째자리까지)</li> <li>LNG 화물이 BOG 끝을 연료로 사용하는 경우 해당 LNG 사용량을 플러스(+값으로) 입력</li> </ul>
⑦ 연간 연료유 사용량 Annual Fuel Consumption	자동 계산

▶ “선박연료유 수급현황”에 포함되는 정보를 자체 진자보고시스템으로 관리하는 경우, 자체 진자 보고시스템에서 출력한 자료를 “업로드” 하는 것으로 대체 가능합니다.

## 2. THE COLLECTED DATA

### Summary

선박운항정보현황 THE COLLECTED DATA SUMMARIES												
IMO Number												
정보수집연도 Calendar year												
운항기간												
Date from (yyyy-mm-dd)	Date to (yyyy-mm-dd)	Distance travelled (nm)	운행시간 (시간분) Hours Underway (hhmm)	연료유 종류/질량(톤) Fuel Oil Type/Mass (MT)								
				경유/ A/S(%) DFO/SDU	유선유 A LFO	유선유 B HFO	프로판 LPG(G)	수단 LPG(D)	액화천연 가스 LNG	메탄올 Methanol	마린유 Marine	기타 Other
2019-01-01	2019-01-02	100	22:00	10.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019-01-02	2019-01-03	200	24:00	10.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019-01-03	2019-01-04	20	00:00	10.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019-01-04	2019-01-05	200	24:00	10.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019-01-05	2019-01-06	210	22:00	10.2	210.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019-01-06	2019-01-07	200	24:00	10.0	200.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019-01-07	2019-01-08	100	17:00	10.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019-01-08	2019-01-09	50	00:00	10.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019-01-09		100	20:00	5.5	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1) IMO NO : General data

2) 운항일 : leg 번호 운항일 max 999 1000 1000 1000 1000

leg 번호 운항일 .

- Noon at sea 가 30 번호 운항일 LEG가 번호 30 번호 운항일 , 31 번호 - Dep. s/by 번호 운항일 운항일 번호 .

# 2. THE COLLECTED DATA

## Summary

### • 작성 예시

① 운행기간 Date from (yyyy-mm-dd)	② 운행거리 Distance travelled (km)  ※ 예상 거리를 선택한 경우로 표기	③ 운행시간 [시간,분] Hours Underway (Minutes)	④ 연료유-증류율 향수(%) Fuel Oil Type/Mass (%)									
			기수 Gasoline	LPG	중유 HFO	증유 LNGC <sub>3</sub>	Diesel	LNG	비아세트 Gas	에탄올 Ethanol	생유 Kerosene	기타 Other
2013-01-01	100	11:30	10.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013-01-02	100	14:00	10.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013-01-03	50	06:00	10.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013-01-04	700	14:00	10.0	200.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-05	110	22:00	10.0	210.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-06	100	24:00	10.0	200.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-07	100	15:00	10.0	100.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-08	50	06:00	10.0	50.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-09	100	23:00	9.5	100.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-10	100	09:00	10.0	200.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-11	150	17:00	10.0	100.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-12	110	12:00	10.0	100.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-13	110	15:00	9.5	100.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*
2013-01-14	500	21:00	10.0	250.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
2013-01-15	100	24:00	25.0	150.0	250.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
⑤ 총 운행 거리 Total travel distance	7,219	200000	14779	7,219.0	20000.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### • 작성 방법

항목	직접(입력) 방법
① 운행기간 Date from (yyyy-mm-dd)	반드시 “yyyy-mm-dd” 형태로 입력
② 운행거리 Distance travelled (km)	정수로 입력
③ 운행시간 [시간,분] Hours Underway (Minutes)	반드시 “hh:mm” 형태로 입력
④ 연료유 종류/질량(%) Fuel Oil Type/Mass (%)	숫자 입력(소수점 첫째자리까지)
⑤ 연간 합계 Annual Total	자동계산

▲ “선박운행정보현황”에 포함되는 정보를 자체 선자보고시스템으로 권리하는 경우, 자체 선자 보고시스템에서 출력한 자료를 “업로드” 하는 것으로 마체 가능합니다.

# 3. Data Report

• 작성 예시		• 작성 방법
① 시작일 Start date (yyyy-mm-dd)	2019-01-01	숫자를 직접 입력
② 종료일 End date (yyyy mm dd)	2019 12 31	숫자를 직접 입력
IMO number	9123040	7자리 숫자
③ 선박형상 Ship type	Tanker	총 14종으로 구분된 ship type 중에서 선택 숫자를 직접 입력 (“3000 이신 칸=” 일례)
총톤수 Gross tonnage	5,970	숫자를 직접 입력 (“선수” 일례)
순톤수 NT	4,165	숫자를 직접 입력 (“선수” 일례)
새하증량톤수 DWT	10,115	숫자를 직접 입력 (소수점 다수자리까지 입력 가능)
선박에너지효율설계자수 EEDI (if applicable) (gCO <sub>2</sub> /t.nm)	30,12345	A SUPER+, IA, IB, IC 중 하나 선택
제빙등급 Ice class (if applicable)	IA	숫자를 직접 입력 (“선수” 일례)
운행거리 Distance Travelled (n.mi/kt)	800(8.6)	숫자를 직접 입력 (“정수” 입력 후 단위대로 반올림)
④ 운행시간 Hours underway (hours)	7,300	1. BUN : method using BUNs 2. FlowMeter : method using flow meters 3. Bulk-Tank Monitoring : method using bunker fuel oil monitoring (3개 중 1개 선택)
선박연료유 사용량 계측방법 Method used to measure Fuel oil consumption		숫자를 직접 입력 (“정수” 일례)
선박연료유 사용량 Fuel oil consumption (l)	기관출력 Power output (rated power) (kW)	주기관 협력 출력 Main Propulsion Power 보조기관 협력 출력 Auxiliary Engine(s)
		7,300 901
		경유/기스오일 Diesel/Gas Oil (C <sub>4</sub> : 3.206)
		500
		경질중유 LFO (C <sub>5</sub> : 3.151)
		1,000
		중질중유 IFO (C <sub>7</sub> : 3.114)
		12,000
		액화석유/나스(프로판) LPG(Propane) (C <sub>3</sub> : 3.000)
		0
		액화석유가스(부탄) LPG (Butane) (C <sub>4</sub> : 3.000)
		0
		액화천연가스 LNG (C <sub>3</sub> : 2.750)
		0
		기타 Oil (other) ... (C <sub>1</sub> : ...)

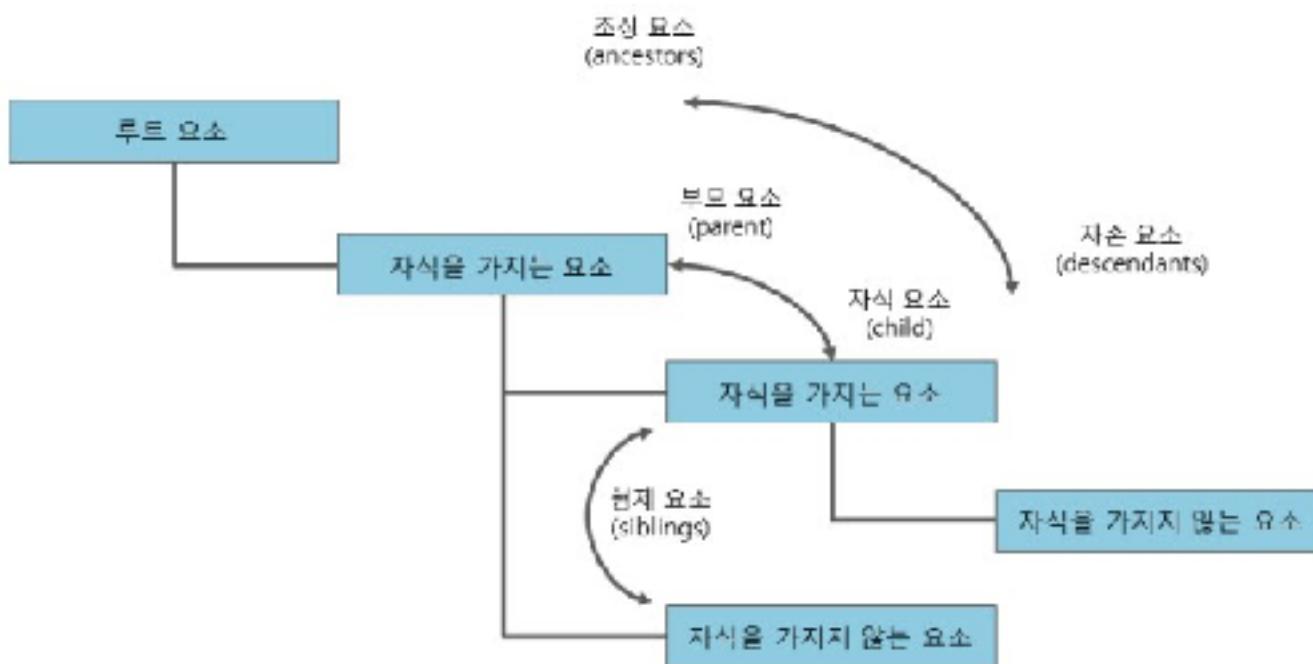
# 4. XML

## XML

- XML은 구조화된 데이터를 표현하는 언어로, 문서와 같은 데이터를 위한 언어
- EXtensible Markup Language의 약어로, 사용자에게 데이터 구조를 정의하는 언어

## XML 구조

- 트리 (tree) 구조로 이루어져 있다.
- 루트 요소 (root) 요소로 이루어져 있고, 그 아래에 자식 요소 (child)가 있다.
- XML 문서 내에서 자식 요소는 부모 요소 (parent)를 가진다.



## 4. XML

XML 例題 ①

```
<?xml version="1.0" encoding="UTF-8"?>
<shop city="東京" type="超级商店">
    <food>
        <name>寿司</name>
        <sort>100</sort>
        <cost>3000</cost>
    </food>
    <food>
        <name>拉面</name>
        <sort>200</sort>
        <cost>2000</cost>
    </food>
</shop>
```

# C22 - Company uploads data through XML files

Emissions.xml (Voyage\_Emissions.xml(a single ship) + Port\_Emissions.xml(a single ship) + Annual emission)

- shipEmissions - 25 ships

□	□	Type	Notes	XML
shipimoNumber	5003734	string	□	<?xml version="1.0" encoding="UTF-8"?> - emissions - <shipEmissions shipimoNumber="1"> + <voyageEmissions> + <portEmissions> + <annualEmission> </shipEmissions> </emissions>
voyageEmission	□		0~40 □	
PortEmission	□		0~40 □	
annualEmission	□		0~2 □	

Emissions xml □ □  
Annual report □ □

- shipEmissions - voyageEmission

□	□	Type	Notes	XML
departurePortName	Piraeus	string	□	<voyageEmission> + <departurePortName>Piraeus</departurePortName> + <arrivalPortName>Lisbon</arrivalPortName> + <date>01-01-2017 00:00:45</date> + <date>05-01-2017 00:00:45</date> + <timeAtSeaNavigation>100</timeAtSeaNavigation> + <timeAtSeaIce>20</timeAtSeaIce> + <timeAtSeaAnchorage>500</timeAtSeaAnchorage> + <distanceTravelNavigation>1500</distanceTravelNavigation> + <distanceTravelIce>200</distanceTravelIce> + <additionalNotes>Additional Notes text Additional Notes text Additional Notes text Additional Notes text Additional Notes text Additional Notes text Additional Notes text Additional Notes text Additional Notes text</additionalNotes> + <departureCountryCodes>GR</departureCountryCodes> + <departurePortCode>GRPIR</departurePortCode> + <arrivalCountryCodes>PT</arrivalCountryCodes> + <arrivalPortCode>PTLIS</arrivalPortCode> - <voyageConsumption> - <voyageConsumption> - <voyageCargoAndTransportWork> </voyageEmission>
arrivePortName	Lisbon	string	□	
atd	01-01-2017 00:00:45	string	□	
ata	05-01-2017 00:00:45	string	□	
timeAtSeaNavigation	100	decimal	□	
timeAtSeaIce	20	decimal	□	
timeAtSeaAnchorage	500	decimal	□	
distanceTravelNavigation	1500	decimal	□	
distanceTravelIce	200	decimal	□	
additionalNotes	Additional Notes text	string	□	
departureCountryCode	GR	string	□	
departurePortCode	GRPIR	string	□	
arrivalCountryCode	PT	string	□	
arrivalPortCode	PTLIS	string	□	
voyageConsumption	□		0~□□□ X	
voyageCargoAndTransportWork	□		0~□□□ X	◆ □□□ □ ~ □□□ □, □□□ 0~□ 1 ◆ Country Code, Port Code □ (Bulk data picklists-v1.1.xlsx □ )
voyageDirectMeasurement	□		0~□□□ X	

# C22 - Company uploads data through XML files

## Emissions.xml (Voyage\_Emissions.xml + Port\_Emissions.xml)

- shipEmissions - [annualEmission](#)

□	□	Type	Notes	□
reportingPeriod	2017	int	□	□□□□□
fromDate	01-01-2017	string	□	□□□
toDate	31-12-2017	string	□	□□□
discriminateThroughIce	false	Boolean	□	□□□, □□□ : false
emissionsBetweenEuPort	1000	decimal		CO2 □□
emissionsDepartEuPort	100	decimal		CO2 □□
emissionsToEuPort	110	decimal		CO2 □□
emissionsEuPortAtBerth	50	decimal		CO2 □□
distanceRegularNav	500	decimal		□□□
distanceThroughIce		decimal		□□□□ □□□ □□
timeRegularNav	99	decimal		□□□
timeThroughIce		decimal		□□□□ □□□ □□
timeAtAnchorage		decimal		□□□ □□
annualConsumption	□		0~□□□ X	
annualDirectMeasurement	□		0~□□□ X	
annualCargoAndTransportWork	□		0~□□□ X	

```
-> <annualEmissions>
  <reportingPeriod>2017</reportingPeriod>
  <fromDate>01-01-2017</fromDate>
  <toDate>31-12-2017</toDate>
  <discriminateThroughIce>false</discriminateThroughIce>
  <emissionsBetweenEuPort>1000</emissionsBetweenEuPort>
  <emissionsDepartEuPort>100</emissionsDepartEuPort>
  <emissionsToEuPort>110</emissionsToEuPort>
  <emissionsEuPortAtBerth>50</emissionsEuPortAtBerth>
  <distanceRegularNav>500</distanceRegularNav>
  <timeRegularNav>85</timeRegularNav>
  <timeAtAnchorage>99</timeAtAnchorage>
  <annualConsumption>
  <annualConsumption>
  <annualConsumption>
  <annualConsumption>
  <annualConsumption>
  <annualConsumption>
  <annualConsumption>
  <annualConsumption>
  <annualConsumption>
  <annualCargoAndTransportWork>
</annualEmissions>
```

# C22 - Company uploads data through XML files

## Emissions.xml (Voyage\_Emissions.xml + Port\_Emissions.xml)

- shipEmissions - annualEmission

name	type	Type	Notes	value
reportingPeriod	2017	int		000 000
fromDate	01-01-2017	string		000 000
toDate	31-12-2017	string		000 000
discriminateThroughIce	false	Boolean		00000 . 00000 : false
emissionsBetweenEuPort	1000	decimal		CO2 000
emissionsDepartEuPort	100	decimal		CO2 000
emissionsToEuPort	110	decimal		CO2 000
emissionsEuPortAtBerth	50	decimal		CO2 000
distanceRegularNav	500	decimal		000 000
distanceThroughIce		decimal		000 000 000 00
timeRegularNav	99	decimal		000 000
timeThroughIce		decimal		000 000 000 00
timeAtAnchorage		decimal		000 000
annualConsumption	0	0~000 X		
annualDirectMeasurement	0	0~000 X		
annualCargoAndTransportWork	0	0~000 X		

Edit Annual Emissions

This annual record is part of the Reporting Period 2017 for which there is no Emission Report Submitted to Commission, therefore cannot be amended.

Reporting period: 2017      Date of record: 11-02-2017 10:26      Regular      Last update: 11-02-2017 10:26

Reporting period	ice consumption	Direct emissions	Parameters	Average energy efficiency
Reporting period:	2018			
From:	01-01-2018			
To:	31-12-2018			
Date of record:	11-02-2018 10:26	Regular	Shipping	Yang

**Save** **Automatic data filling** **Close**

Edit Annual Emissions

This annual record is part of the Reporting Period 2017 for which there is no Emission Report Submitted to Commission, therefore cannot be amended.

Total CO<sub>2</sub> Emissions: 1750.24 t - tonnes

Reporting period	ice consumption	Direct emissions	Parameters	Average energy efficiency
Total fuel consumption	000.0000000000000000			
Total CO <sub>2</sub> emissions	1750.24 t			
CO <sub>2</sub> emissions from oil bunkering (including bunkering at ports)	000.00 t			
CO <sub>2</sub> emissions from oil bunkering (excluding bunkering at ports)	1750.24 t			
CO <sub>2</sub> emissions from oil bunkering (including bunkering at ports)	000.00 t			
CO <sub>2</sub> emissions from oil bunkering (excluding bunkering at ports)	1750.24 t			
Total direct emissions	1750.24 t			
Shipping consumption				
Maritime				
Total direct emissions	1750.24 t			
Shipping consumption				
Maritime				
Total direct emissions	1750.24 t			

**Save** **Automatic data filling** **Close**

# C22 - Company uploads data through XML files

## Emissions.xml (Voyage\_Emissions.xml + Port\_Emissions.xml)

- shipEmissions – annualEmission – annualConsumption (연간排出량)

			Type	Notes	
fuelTypeCode	MDO ETHANOL MGO HFO LFO LNG LPG_BUTANE LPG_PROPANE METHANOL OTHER	string			
amount	10	decimal			
atBerth	true	Boolean			
diffCriterionCode	ON_BALAST ON_LADEN CARGO_HEATING DYNAMIC_POSITIONING PASSENGER_TRANSPO RT FREIGHT_TRANSPORT	string	0~100 X Managed, based on ship type.		Ballast, Laden, CARGO_HEATING, DYNAMIC_POSITIONING, PASSENGER_TRANSPO, RT, FREIGHT_TRANSPORT
emissionFactor	1	decimal			
<pre> &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;MDO&lt;/fuelTypeCodes&gt;     &lt;amount&gt;10&lt;/amount&gt;     &lt;atBerth&gt;true&lt;/atBerth&gt;     &lt;commissionFactors&gt;1&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;ETHANOL&lt;/fuelTypeCodes&gt;     &lt;amount&gt;20&lt;/amount&gt;     &lt;atBerth&gt;false&lt;/atBerth&gt;     &lt;commissionFactors&gt;0&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;MGO&lt;/fuelTypeCodes&gt;     &lt;amount&gt;30&lt;/amount&gt;     &lt;atBerth&gt;true&lt;/atBerth&gt;     &lt;commissionFactors&gt;3&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; </pre>					
<pre> &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;HFO&lt;/fuelTypeCodes&gt;     &lt;amount&gt;10&lt;/amount&gt;     &lt;atBerth&gt;false&lt;/atBerth&gt;     &lt;commissionFactors&gt;1&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;LFO&lt;/fuelTypeCodes&gt;     &lt;amount&gt;50&lt;/amount&gt;     &lt;atBerth&gt;true&lt;/atBerth&gt;     &lt;commissionFactors&gt;5&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;LNG&lt;/fuelTypeCodes&gt;     &lt;amount&gt;60&lt;/amount&gt;     &lt;atBerth&gt;false&lt;/atBerth&gt;     &lt;commissionFactors&gt;6&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; </pre>					
<pre> &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;LPG_BUTANE&lt;/fuelTypeCodes&gt;     &lt;amount&gt;100&lt;/amount&gt;     &lt;atBerth&gt;true&lt;/atBerth&gt;     &lt;commissionFactors&gt;10&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;LPG_PROPANE&lt;/fuelTypeCodes&gt;     &lt;amount&gt;100&lt;/amount&gt;     &lt;atBerth&gt;false&lt;/atBerth&gt;     &lt;commissionFactors&gt;10&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;METHANOL&lt;/fuelTypeCodes&gt;     &lt;amount&gt;100&lt;/amount&gt;     &lt;atBerth&gt;true&lt;/atBerth&gt;     &lt;commissionFactors&gt;10&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; &lt;annualConsumptions&gt;     &lt;fuelTypeCodes&gt;OTHER&lt;/fuelTypeCodes&gt;     &lt;amount&gt;100&lt;/amount&gt;     &lt;atBerth&gt;true&lt;/atBerth&gt;     &lt;commissionFactors&gt;10&lt;/commissionFactors&gt; &lt;/annualConsumptions&gt; </pre>					

# C22 - Company uploads data through XML files

			Type	Notes	
		MDO ETHANOL MGO HFO LFO LNG LPG BUTANE LPG PROPANE METHANOL OTHER	string		
fuelTypeCode	MDO				
amount	10		decimal		
atBerth	true		Boolean		
diffCriterionCode		ON_BALLAST ON_LADEN CARGO_HEATING DYNAMIC_POSITIONING PASSENGER_TRANSPO RT FREIGHT_TRANSPORT	string	0~1000 X Managed, based on ship type.	
emissionFactor	1		decimal		

**Edit Annual Emissions**

This annual record is part of the Reporting Period 2010 for which there is an Emissions Report Submitted to Commission, therefore cannot be amended.

Reporting period	Fuel consumption	Direct emissions	Parameters	Average energy efficiency
Total CO <sub>2</sub> emissions	2750.2418 m tonnes			
Fuel type	Amount (m tonnes)	At berth	Differentiating criteria	Emission factor (t-CO <sub>2</sub> /t-fuel)
Actions	Gas oil (MGO)	17.0 ✓		3.206
Actions	Gas oil (MGO)	23.9		3.206
Actions	Heavy fuel oil	89.4		3.114
Add new entries	Total consumption	801.0999999999999 m tonnes	Total CO <sub>2</sub>	2750.2418 m tonnes
Show	Automated data filling		Close	

**Edit Annual Consumption**

This annual record is part of the Reporting Period 2010 for which there is an Emissions Report Submitted to Commission, therefore cannot be amended.

Fuel type *	Gas oil (MGO)
Amount *	23.9 m tonnes
Ship at berth	<input type="checkbox"/>
Differentiating criteria	
Emission factor *	3.206 t-CO <sub>2</sub> /t-fuel
CO <sub>2</sub> emissions	76.6234 m tonnes
Save	Close

## C22 - Company uploads data through XML files

Emissions.xml (Voyage\_Emissions.xml + Port\_Emissions.xml)

- shipEmissions – annualEmission – annualDirectMeasurement(CO2 二氧化碳 - 00 )

00	0	Options/Rules	Type	Notes	00
atBenth			boolean	00	
diffCriterionC ode	ON_BALLAST ON_LADEN CARGO_HEATING DYNAMIC_POSITIONING PASSENGER_TRANSPORT FREIGHT_TRANSPORT		string	0~00 00 X Managed, based on ship type.	
co2Emissio ns			decimal	00	

- shipEmissions – annualEmission – annualCargoAndTransportWork

00	0	Options/Rules	Type	Notes	00
transportWork	10		decimal	00	Transportwork 0
cargoFieldCode	CARGO_MASS_TRANSPO RT_WORK_MASS	CARGO_MASS_TRANSPORT_WORK_MASS CARGO_VOLUME_TRANSPORT_WORK_VOLUME CARGO_DWT_TRANSPORT_WORK_DWT NO_OF_PASSENGERS_TRANSPORT_WORK_PAX CARGO_MASS_TRANSPORT_WORK_FREIGHT	string	00	0000 CARGO_MASS_TRANSPORT_WORK_MASS : MT CARGO_VOLUME_TRANSPORT_WORK_VOLUME : CBM CARGO_DWT_TRANSPORT_WORK_DWT : DWT NO_OF_PASSENGERS_TRANSPORT_WORK_PAX : PASSENGER

```
- <annualCargoAndTransportWork>
  <transportWork>10</transportWork>
  <cargoFieldCode>CARGO_MASS_TRANSPORT_WORK_MASS</cargoFieldCode>
</annualCargoAndTransportWork>
```

# C22 - Company uploads data through XML files

Emissions.xml (Voyage\_Emissions.xml + Port\_Emissions.xml)

- shipEmissions – annualEmission – annualCargoAndTransportWork

transportWork	10	Options/Rules	Type	Notes	Transportwork
cargoFieldCode	CARGO_MASS_TRANSPORT_WORK_MASS	CARGO_MASS_TRANSPORT_WORK_MASS CARGO_VOLUME_TRANSPORT_WORK_VOLUME CARGO_DWT_TRANSPORT_WORK_DWT NO_OF_PASSENGERS_TRANSPORT_WORK_PAX CARGO_MASS_TRANSPORT_WORK_FREIGHT	string		CARGO_MASS_TRANSPORT_WORK_MASS : MT CARGO_VOLUME_TRANSPORT_WORK_VOLUME : CBM CARGO_DWT_TRANSPORT_WORK_DWT : DWT NO_OF_PASSENGERS_TRANSPORT_WORK_PAX : PASSENGER

```
<annualCargoAndTransportWorks>
  <transportWorks>10</transportWorks>
  <cargoFieldCodes>CARGO_MASS_TRANSPORT_WORK_MASS</cargoFieldCodes>
</annualCargoAndTransportWorks>
```

Reporting period	Fuel consumption	Direct emissions	Parameters	Average energy efficiency
Total fuel consumption	901.0000000000001 liters			
Total CO <sub>2</sub> emissions	2.251.1000000000003 kg			
CO <sub>2</sub> emissions from all voyages between ports under a MS jurisdiction	2.164 liters			
CO <sub>2</sub> emissions from all voyages which departed from ports under a MS jurisdiction	497.1 liters			
CO <sub>2</sub> emissions from all voyages to countries under a MS jurisdiction	1.677 liters			
CO <sub>2</sub> emissions which occurred within ports under a MS jurisdiction to home	7.562 liters			
Total distance travelled	3283.00 miles			
Regular navigation	2279 miles			
Throughput	400 miles			
Total time spent at sea	499.00 hours			
Regular navigation	141 hours			
Throughput	16 hours			
At anchorages	37 hours			
Total transport work (miles)	16004700 miles			

**Save** **Automated data filling** **Close**