

# INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE

No LDR0/SMC/20201207215859

Issued under the provisions of the Protocol of 1997, as amended  
to amend the International Convention for the Prevention of  
Pollution from Ships, 1973 as modified by the Protocol of 1978 related thereto,  
(hereinafter referred to as "the Convention")

under the authority of the Government of

**GOVERNMENT OF IRELAND**

By BUREAU VERITAS MARINE & OFFSHORE

Name of Ship BV No : 31788E	Distinctive Number or Letters	Port of Registry	Gross Tonnage
ARKLOW WAVE	EIUQ9	ARKLOW	9999

IMO number : 9818931

## THIS IS TO CERTIFY

1. That the ship has been surveyed in accordance with Regulation 5 of Annex VI of the Convention; and
2. That the survey shows that the equipment, systems, fittings, arrangements and materials fully comply with the applicable requirements of Annex VI of the Convention.

Completion date of the survey on which this Certificate is based: 24 October 2018

This Certificate is valid until \* **23 October 2023**

subject to surveys in accordance with Regulation 5 of Annex VI of the Convention.

Issued at AUGHINISH, on the 07 December 2020

Valid only when the Supplement No. LDR0/SMC/20201207215859/SUPP is available for inspection.

**BUREAU VERITAS  
MARINE & OFFSHORE**

S.McConnell



\* Insert date of expiry as specified by the Administration in accordance with regulation 9.1 of Annex VI of the Convention. The day and the month of this date correspond to the anniversary date as defined in regulation 2.3 of Annex VI of the Convention, unless amended with regulation 9.8 of Annex VI of the Convention.

IAPP CERTIFICATE No : LDR0/SMC/20201207215859  
NAME OF SHIP : ARKLOW WAVE  
BV REGISTER : 31788E

### ENDORSEMENT FOR ANNUAL AND INTERMEDIATE SURVEYS

THIS IS TO CERTIFY that at a survey required by Regulation 5 of Annex VI of the Convention the ship was found to comply with the relevant provisions of that Annex :

Annual survey Signed : Stéphane Van De Weghe  
(Surveyor to BUREAU VERITAS MARINE & OFFSHORE)

Place : Marseilles, FRANCE  
Date : 31 January 2020



Annual survey Signed : S. McCONNELL  
 Intermediate survey (Surveyor to BUREAU VERITAS MARINE & OFFSHORE)

Place : AUGHINISH  
Date : 27/NOV/2020



Annual survey Signed :  
 Intermediate survey (Surveyor to BUREAU VERITAS MARINE & OFFSHORE)

Place :  
Date :

Annual survey Signed :  
(Surveyor to BUREAU VERITAS MARINE & OFFSHORE)

Place :  
Date :

IAPP CERTIFICATE No : LDR0/SMC/20201207215859  
NAME OF SHIP : ARKLOW WAVE  
BV REGISTER : 31788E

### ANNUAL/INTERMEDIATE SURVEY IN ACCORDANCE WITH REGULATION 9.8.3

THIS IS TO CERTIFY that, at an survey in accordance with regulation 9.8.3 of Annex VI of the Convention, the ship was found to comply with the relevant provisions of that Annex:

Signed :  
(Surveyor to BUREAU VERITAS MARINE & OFFSHORE)

Place :  
Date :

### ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN 5 YEARS WHERE REGULATION 9.3 APPLIES

The ship complies with the relevant provisions of the Annex, and this Certificate shall, in accordance with regulation 9.3 of Annex VI of the Convention, be accepted as valid until

Signed :  
(Surveyor to BUREAU VERITAS MARINE & OFFSHORE)

Place :  
Date :

### ENDORSEMENT WHERE THE RENEWAL SURVEY HAS BEEN COMPLETED AND REGULATION 9.4 APPLIES

The ship complies with the relevant provisions of the Annex, and this Certificate shall, in accordance with regulation 9.4 of Annex VI of the Convention, be accepted as valid until

Signed :  
(Surveyor to BUREAU VERITAS MARINE & OFFSHORE)

Place :  
Date :

IAPP CERTIFICATE No : LDR0/SMC/20201207215859  
NAME OF SHIP : ARKLOW WAVE  
BV REGISTER : 31788E

**ENDORSEMENT TO EXTEND THE VALIDITY OF THE CERTIFICATE UNTIL  
REACHING THE PORT OF SURVEY OR FOR A PERIOD OF GRACE WHERE  
REGULATION 9.5 OR 9.6 APPLIES**

This Certificate shall, in accordance with regulation of Annex VI of the Convention, be accepted as valid until

Signed :  
(*Surveyor to BUREAU VERITAS MARINE & OFFSHORE*)

Place :  
Date :

**ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE  
WHERE REGULATION 9.8 APPLIES**

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is

Signed :  
(*Surveyor to BUREAU VERITAS MARINE & OFFSHORE*)

Place :  
Date :

In accordance with regulation 9.8 of Annex VI of the Convention, the new anniversary date is

Signed :  
(*Surveyor to BUREAU VERITAS MARINE & OFFSHORE*)

Place :  
Date :

**SUPPLEMENT TO THE  
INTERNATIONAL AIR POLLUTION PREVENTION CERTIFICATE  
(IAPP CERTIFICATE)**

**RECORD OF CONSTRUCTION AND EQUIPMENT**

**Notes :**

1. This Record shall be permanently attached to the IAPP Certificate. The IAPP Certificate shall be available on board the ship at all times.
2. The Record shall be at least in English, French or Spanish. If an official language of the issuing country is also used, this shall prevail in case of a dispute or discrepancy.
3. Entries in boxes shall be made by inserting either a cross (X) for the answers "yes" and "applicable" or a dash (-) for the answers "no" and "not applicable" as appropriate.
4. Unless otherwise stated, regulations mentioned in this Record refer to regulations of Annex VI of the Convention and resolutions or circulars refer to those adopted by the International Maritime Organization.

**1. PARTICULARS OF SHIP**

1.1. Name of ship: **ARKLOW WAVE**

BV Register: **31788E**

1.2. IMO Number: **9818931**

1.3. Date on which keel was laid or ship was at a similar stage of construction: **14 December 2015**

1.4. Length (metres)\*:



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VERITAS**

*\* completed only in respect of ships constructed on or after 1 January 2016, that are specially designed, and used solely for recreational purposes and to which, in accordance with regulation 13.5.2.1 or regulation 13.5.2.3, the NOx emission limit as given by regulation 13.5.1.1 will not apply.*

**SUPPLEMENT TO IAPP CERTIFICATE No : LDR0/SMC/20201207215859/SUPP**  
**NAME OF SHIP : ARKLOW WAVE**  
**BV REGISTER : 31788E**

**2. CONTROL OF EMISSIONS FROM SHIPS**

*2.1 Ozone-depleting substances (regulation 12)*

2.1.1 The following fire-extinguishing systems, other systems and equipment containing ozone depleting substances, other than hydro-chlorofluorocarbons, installed before 19 May 2005 may continue in service

System or equipment	Location on board	Substance

2.1.2 The following systems containing hydro-chlorofluorocarbons (HCFCs) installed before 1 January 2020 may continue in service

System or equipment	Location on board	Substance

2.2 Nitrogen oxides (NOx) (regulation 13)

2.2.1 The following marine diesel engines installed on this ship are in accordance with the requirements of regulation 13, as indicated:

Applicable regulation of MARPOL Annex VI (NTC = NOx Technical Code 2008) (AM = Approved method)		Engine #1	Engine #2	Engine #3
1	Manufacturer and model	CATERPILLAR MOTOREN GmbH & Co. KG 8M32C	YANMAR CO., LTD. 6AYL-WET	YANMAR CO., LTD. 6AYL-WET
2	Serial number	39305	4896	4897
3	Use (applicable application cycle(s) – NTC 3.2)	E2	D2	D2
4	Rated power (kW) (NTC 1.3.11)	3840	438	438
5	Rated speed (RPM) (NTC 1.3.12)	600	1500	1500
6	Identical engine installed on or after 1/1/2000 exempted by 13.1.1.2	-	-	-
7	Identical engine installation date (dd/mm/yyyy) as per 13.1.1.2	-	-	-
8a	Major conversion (dd/mm/yyyy)	13.2.1.1 & 13.2.2	-	-
8b		13.2.1.2 & 13.2.3	-	-
8c		13.2.1.3 & 13.2.3	-	-
9a	Tier I	13.3	-	-
9b		13.2.2	-	-
9c		13.2.3.1	-	-
9d		13.2.3.2	-	-
9e		13.7.1.2	-	-
10a	Tier II	13.4	X	X
10b		13.2.2	-	-
10c		13.2.2 (Tier III not possible)	-	-
10d		13.2.3.2	-	-
10e		13.5.2 (Exemptions)	-	-
10f		13.7.1.2	-	-
11a	Tier III (ECA-NOx only)	13.5.1.1	-	-
11b		13.2.2	-	-
11c		13.2.3.2	-	-
11d		13.7.1.2	-	-
12	AM*	Installed	-	-
13		Not commercially available at this survey	-	-
14		Not applicable	-	-

\* Refer to the 2014 Guidelines on the approved method process (resolution MEPC.243(66)).

2.3 *Sulphur oxides (SOx) and particulate matter (regulation 14)*

2.3.1 When the ship operates outside of an Emission Control Area specified in regulation 14.3, the ship uses:

.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0,50% m/m and/or

.2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6 that is at least as effective in term of SOx emission reductions as compared to using a fuel oil with a sulphur content limit value of 0,50% m/m

2.3.2 When the ship operates inside an Emission Control Area specified in regulation 14.3, the ship uses:

.1 fuel oil with a sulphur content as documented by bunker delivery notes that does not exceed the limit value of 0,10% m/m and/or

.2 an equivalent arrangement approved in accordance with regulation 4.1 as listed in 2.6 that is at least as effective in terms of SOx emission reductions as compared to using a fuel oil with a sulphur content limit value of 0,10% m/m

2.3.3 For a ship without an equivalent arrangement approved in accordance with regulation 4.1 as listed in paragraph 2.6, the sulphur content of fuel oil carried for use on board the ship shall not exceed 0.50% m/m as documented by bunker delivery notes

2.4 *Volatile organic compounds (VOCs) (regulation 15)*

2.4.1 The tanker has a vapour collection system installed and approved in accordance with MSC/Circ.585

2.4.2.1 For a tanker carrying crude oil, there is an approved VOC Management Plan.

2.4.2.2 VOC Management Plan approval reference:

2.5 *Shipboard incineration (regulation 16)*

The ship has an incinerator:

.1 installed on or after 1 January 2000 that complies with:

.1 resolution MEPC.76(40) as amended by resolution MEPC.93(45).

.2 resolution MEPC.244(66).

.2 installed before 1 January 2000 that complies with:

.1 resolution MEPC.59(33), as amended by resolution MEPC.92(45).

.2 resolution MEPC.76(40) as amended by resolution MEPC.93(45).



**SUPPLEMENT TO IAPP CERTIFICATE No : LDR0/SMC/20201207215859/SUPP**

**NAME OF SHIP : ARKLOW WAVE**

**BV REGISTER : 31788E**

*2.6 Equivalent (regulation 4):*

The ship has been allowed to use the following fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by this Annex:

System or equipment	Equivalent used	Approval reference

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at AUGHINISH, on the 07 December 2020

**BUREAU VERITAS  
MARINE & OFFSHORE**

S.McConnell



A blue circular official seal of Bureau Veritas Marine &amp; Offshore International Register is overlaid with a handwritten signature in blue ink. The seal contains the text 'BUREAU VERITAS MARINE &amp; OFFSHORE' and 'INTERNATIONAL REGISTER'. Below the seal, the text 'By Order of the Secretary' is printed.