

TEHCROSS NEWS

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Providing Right Solutions For Your Ships

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News 01. USCG Issued First Korean BWM System Type Approval Certificate

On June 5, 2018, the U.S. Coast Guard Marine Safety Center issued U.S. Coast Guard Ballast Water Management System type approval certificate to Techcross Inc. based in Busan, Republic of Korea.



Marine Safety Center BWMs Type Approval Status



<i>Approved</i>						
Initial Application Received	Manufacturer (Country)	Model	Independent Lab	System Type	Capacity	Certificate Issued* (Amended)
20 Sep 2016	Optimarin (Norway)	OBS/OBS Ex	DNV GL	Filtration + UV	167 – 3,000 m ³ /h	02 Dec 2016 (03 Nov 2017)
21 Sep 2016	Alfa Laval (Sweden)	Pure Ballast 3	DNV GL	Filtration + UV	150 – 3,000 m ³ /h	23 Dec 2016 (21 Dec 2017)
23 Sep 2016	TeamTec OceanSaver AS (Norway)	OceanSaver MK II	DNV GL	Filtration + Electrolysis	200 – 7,200 m ³ /h	23 Dec 2016 (18 Oct 2017)
24 Jan 2017	Sunrui (China)	BalClor	DNV GL	Filtration + Electrolysis	50 – 8,500 m ³ /h	06 Jun 2017 (05 Jan 2018)
31 Mar 2017	Ecochlor, Inc. (USA)	Ecochlor BWTS	DNV GL	Filtration + Chemical Injection	500 – 16,200 m ³ /h	10 Aug 2017 (26 Apr 2018)
02 May 2017	Erma First (Greece)	Erma First FIT	Lloyds Register	Filtration + Electrolysis	100 – 3,740 m ³ /h	18 Oct 2017
31 Oct 2017	Techcross, Inc. (Republic of Korea)	Electro-Clean System	Korean Register	Electrolysis	150 – 12,000 m ³ /h	05 Jun 2018

This newly came during Posidonia 2018 exhibition held in Athens, Greece and Techcross staffs, clients, and many visitors celebrated the long waited USCG type approval certificate. Techcross became 7th company to receive the USCG certificate after a detailed review of the manufacturer's type approval application determined the system met the requirements of 46 CFR 162.060. USCG review took more than seven months since Techcross submitted the application on Oct. 31 2017 upon completion of all required compliance tests and reports for the approval for over two years with Independent Laboratory (IL) Korea Register of Shipping (KR).

"We are very pleased with the USCG type approval, as it finally confirms the reliable performance and compliance to US discharging standards of our Electro-Clean™ System (ECS). We now have a system approved by both U.S. Coast Guard and the IMO" says Jay Lee, Director of Sales & Promotion at Techcross.

Techcross ECS received the approval for usage in all water salinities, including fresh water. The tests were performed at KOMERI's test facilities in Geoje, Rep of Korea, supervised by KR as the IL.

ECS is the first IMO approved (2008) full flow electrolysis known as the frontier of electrolysis technology and some other makers followed the treatment principle. However, unlike the others, ECS does not have the filtration with fine mesh size of 20~50um. "Techcross has intended to develop a BWMS without fine mesh filter ever since we started the development in 2004 as we did not have enough confidence in fine mesh of 50um or less for long-time use. In use, a vessel might operate its BWMS for around 15-20 hours whereas the land-based test only needs the operation for an hour or so for 200~300m³/hr capacity. There was a rumor that the system without fine mesh filter might not receive the USCG approval but this turned out to be totally groundless. In reality, there are many vessels which may not be fitted with automatic backflush filter with no modification on engine room or pump room having limited space and ECS can be the better solution for those vessels," Jay added. (continued on the next page)

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(continued) ECS USCG certificate has operational limitation for hold time of 120 hours. This can be a restriction for the vessels discharging ballast water within five days from ballasting. As for this, Jay explained that "IMO old and even revised G8 still requires 5 days hold time for identification of relevant chemicals and toxicity testing of the treated ballast water from test cycles in accordance with the procedure for approval of ballast water management systems that make use of active substances (G9) and ECS was tested with 5 days hold time for all salinities to be proven environmentally safe first. While acknowledging holding time is critical for the vessel operation, we have been working on the additional tests with KR for the 48 hours hold time for all salinities and expect the amended USCG certificate before the end of 2018."



As one of the congratulators at Posidonia exhibition, Dr. Vladimiro Bonamin, Director of Marine Services at SGS Geneva, the world's largest environmental maritime testing company, evaluated the ECS performance as one of the most reliable systems compliant with the relevant standards of both IMO and the US based on their several hundred sampling events around world over a number of years. Dr. Bonamin said "SGS proved full compliance during many testing events of Techcross BWMSs. This happened in the developmental and final stages of Techcross BWMSs on numerous vessels representing a vast array of operating conditions."

ECS is modular designed, flexible and suitable for various kinds of vessels. It has been proven enough with installation for more than 1,100 vessels. " Since last year we have contracted for different types of existing vessels

and already installed ECS for 35 vessels and continues. We intend to provide total solutions from design to installation, commissioning and after sales services on global scale. We are still investing huge resources on the systems delivered worldwide for not only the service works but also training on operation, maintenance and troubleshooting for inexperienced ship officers and crews. Providing compliance and trust to the clients is one of our primary goals," Jay added the final comment.

News 02. Techcross to Hold Consecutive Seminars Commemorating USCG T.A.

Techcross, a global leading BWMS manufacturer recently acquired USCG type approval for the first time in Korea and is scheduled to hold commemorative seminars for the purpose of providing clients with timely information related to USCG type approval and Techcross' service plan, as well as the following Q&A session. Starting from Singapore on 5th July, Techcross will visit Japan, Korea, China and Taiwan in a consecutive manner. These seminars are expected to be very meaningful event to all participants as a privileged opportunity not only in exchanging in-depth knowledge on BWMS, but also in extensive networking among valuable key players within industry.

Event Schedule

Public Event

- June 28, 2018
: Ballast Water Management Forum / Busan, Korea
- September 4 ~ 7, 2018
: SMM 2018 / Hamburg, Germany

TECHCROSS Event

- July 5, 2018 : Techcross Seminar in Singapore
- July 11, 2018 : Techcross Seminar in Japan
- July 18, 2018 : Techcross Seminar in Korea
- July 24, 2018 : Techcross Seminar in China
- July 26, 2018 : Techcross Seminar in Taiwan
- July 28 ~ August 5, 2018 : Summer holidays
- September 22 ~ 30, 2018 : Thanksgiving holidays

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News 03. 18th Anniversary Celebration Event of Techcross

Techcross, a total solution provider of Ballast Water Management System, celebrated its 18th Anniversary last May. Ten years have passed since Techcross received the final approval from IMO in 2008, and now the company becomes the world's no. 1 BWMS manufacturer representing the largest order backlog and track record of more than 1,500 ships and over 1,000 ships respectively. Despite the global recession in the maritime industry over the past few years, Techcross has continued to improve the service quality for clients by actively expanding its global service networks. All the employees of Techcross gathering at Molundae, Dadaepo on 25th May celebrated the anniversary event by joining simple quiz contests to remind its Mission and taking group photos while trekking along the Galmaetgil and finally demonstrated its determination to achieve its Vision 2020 in a cheerful atmosphere.



On the occasion of this anniversary event, all at Techcross, although the company has been stuck in the shipbuilding market recession for the last three years, were inspired to pledge to unite the forces for the company's second leap by way of being committed to increasing new orders with USCG type approval and launching brand-new system for the rest of this year.

News 04. Guest Lecture for Value Based Management



On 28 March, Techcross made an opportunity to have a guest lecture "Techcross in client's view" to think about the meaning of work and self-esteem in the value based management.

The invited lecturer is one of Techcross' clients who is the director of fleet management in KLCSM, the biggest domestic ship owner, SM Group's specialized ship management company. He made a presentation about what Techcross should do to be a solid global no. 1 BWMS company from their abundant references of installation of BWMS including Techcross' systems on their 6 vessels.

After the lecture, most of Techcross' employees said positive opinions ; "Good to hear our client's voice directly" "I feel proud of working at Techcross that makes good systems" "It was a valuable time to understand the meaning of our work".

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