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Background and experiences of GSR Services (Green Ship Recycling Services)

i. GSR Services GmbH

GSR Services GmbH (GSR) is a private owned company (established in January 2011) for offering comprehensive expertise based services for effective implementation of new requirements for enhancing the safety and environmental performance of global ship recycling industry. GSRs' goal is improving the safety and environmental protection of ship recycling activities and closing the circle from cradle to cradle in the maritime industry.

Services for clients are provided along the whole life-cycle of ships, from manufacturers and suppliers of materials & components via shipyards, shipowners, brokers to ship recyclers including waste management in their hinterland as well as classification societies and flag states. GSR provides customer oriented solutions based on its vast technical and legal experience and knowledge. GSR is well connected internationally to various stakeholder networks, also the CEO Henning Gramann has established the „International HazMat Association e.V.“ in 2013 for providing efficient IHM services to ship owners globally.

ii. Examples of expertise and experience

GSR / Henning Gramann has various related experiences, as reflected i.e. in the list of his publications (Annex 1). Also he has significantly contributed to legal developments (HKC) and related guidelines at IMO under consideration of ILO, Basel Convention and other relevant international requirements. These activities were directly linked to his research and development projects at GL where he has built up the ship recycling department from 2006 till end of 2010.

Soon after establishment of GSR in January 2011 manifold projects throughout maritime supply chains, shipbuilding, fleet in service, end of life ships and ship recycling facilities were carried out.

iii. Examples of work experience in developing inventories of hazardous materials (IHM)

GSR Services has prepared more than 60 IHMs for new and existing ships acc. to Res. MEPC. 179(59), Res. MEPC 197(62), and Res. MEPC 269(68) since 2011. Some projects are listed below:

- Meyer Werft: 15 cruise vessels, 1 research vessel, 2 LNG Tankers
- Great Lakes Feeder Lines: 1 container vessel
- GAUSS/Federal Ministry of Education and Research: 1 research vessel
- Perenco: 2 unnamed FSUs
- Hansa Shipping: 1 container vessel, 2 sailing cruise vessels
- TSR Recycling: 1 unnamed domestic vessel
- Leonhard & Blumberg: 3 geared container vessels
- Wyker Dampfschiffsreederei: 2 double-end ferries
- Reederei Buss: 1 container vessel
- Shanghai Shipyard: 1 container vessel
- Sietas Shipyard: 1 self-elevating offshore unit (incl. Dutch asbestos survey)
- Nordic Yards: 1 self-elevating offshore unit (incl. Dutch asbestos survey)
- Neptunwerft: 1 LNG Tanker, 2 ferries
- Bundespolizei: 2 coast guard vessels
- ClassNK Consulting Services: 3 Combo vessels (as sub-contractor)
- NEW ZEALAND DEFENCE FORCE: 1 tanker
- Van Oord Marine Service BV: Asbestos Survey acc. to NL-requirements
- GMS: 1 Container vessel
- Aktien-Gesellschaft "Ems": 3 double-end ferries
- Becker Marine Systems GmbH & Co. KG: 1 LNG-Hybrid Barge
- Reederei Speck: 3 container vessels
- Hegemann GmbH: 1 suction dredger
- Bohlen & Doyen GmbH: 1 cable layer
- Grace Ocean Pvt. Ltd.: 2 Cargo / Vehicle Carrier
- Oldendorff Carriers
- ... and many more

iv. Examples of work experience in relation to the environmental aspects of ship recycling

- i. In 2013 GSR Services started working with 4 ship recycling facilities (SRFs) in Alang / India for a gap analysis and after that towards full compliance with Hong Kong Convention which was certified by ClassNK in 2015. As of June 1st 2018 a ~20 SRFs have been certified, 10 more are waiting for their audits and 13 facilities are in different project stages closely guided and supported by GSR Services. In parallel to this GSR works with six more SRFs from Pakistan for similar HKC compliance projects.

Aim of the projects is to upgrade the ship recycling facilities from their current status to full compliance with Hong Kong Convention of IMO (HKC) and some additionally EU-SRR. The projects are based on sharing experience, technical & legal knowledge for developing concepts jointly with the SRFs. These projects are conducted under full consideration of HKC and related 2012 Guidelines for Safe and Environmentally Sound Recycling of Ships (Res. MEPC.210(63)).

These project have significantly improved the safety and environmental performance of the participating SRFs and our clients have become the most renowned green and safe ship recycling providers.

- ii. GSR Services has prepared IHMs for two tankers and provided the owner with advice on green & safe ship recycling. This included development on criteria to be fulfilled by potential SRFs for handling of hazardous materials found on board and commercial as well as legal and contractual guidance. GSR Services was later ordered to inspect the ongoing recycling project for verification whether or not the set criteria were met by the chosen SRF.
- iii. GSR Services has developed the ship recycling standard for one of the biggest shipowners from Denmark and introduced him to Indian ship recyclers. With a noticeable media coverage this owner is now frequently sending his obsolete ships to selected SRFs in India.
- iv. GSR services has prepared the Tanker “HMNZS Endeavour” of New Zealand Defence Forces for recycling. The project included preparation of IHMs, development of tender criteria, technical advice for tender reviews, carrying out due-diligence visits to pre-selected and shortlisted ship recycling facilities, review and advice for ship recycling plan and carrying out supervision during the entire recycling process and **full compliance with Basel Convention**, the first ever in India.

v. Examples of working with relevant stakeholders

GSR has experiences in all fields related to ship recycling, from cradle to grave. Detailed insight has been gained by early involvement in the development of legal requirements at IMO including very active participation in developing all related guidelines since 2006. Additionally GSR was involved in the preparation of the ISO 30000 series from the very beginning including project leadership for ISO 30003 and ISO 30005. GSR is also frequently invited by European Maritime Safety Agency (EMSA) to present IHM-related topics and guidance. These are important activities allowing GSR to consider all ship recycling related aspects.

GSR and its staff has conducted specific research projects in the fields of IHM preparations and certifications, utilization of IHM information for planning of ship recycling processes and identification of suitable ship recycling facilities. These efforts have also led to the establishment of an international network of IHM-Experts (IHMA, www.ihm-association.org) which includes laboratory standards, sharing of experiences for creating a high standard network, and much more.

All developments and services have been and are carried out with focus on legal compliance, health and safety, environmental protection, Corporate Social Responsibility, practicality, efficiency, and economics.

GSR offers the following services to its clients:

- IHM-Preparation for new & existing ships (approved service supplier by Bureau Veritas and RINA, “approved HazMat Expert” by DNVGL and ClassNK, member of [IHMA](#))
- IHM-maintenance for shipowners
- MD/SDoC management for manufacturers
- Decontamination planning and preparation of Safe Operating Procedures (SOPs) for managing hazardous materials onboard ships
- Preparation of ships for recycling, recycling planning, identification of suitable ship recycling facilities based on ship specifications, legal and commercial evaluations
- Supervision of ship recycling projects
(in India via our local company Guideship LLP www.guideship.co.in)
- Improvement and compliance projects for ship recycling facilities
- Advise on and overtaking of MDs & SDoCs preparation for suppliers
- Advise on and overtaking of IHM preparation for shipyards
- Advise for classification societies
- Design and operation of ship recycling facilities in relation with hinterland infrastructure
- Trainings:
 - o Asbestos awareness for workers / for managers and supervisors
 - o IHM Trainings (basic and advanced) for “IHM Experts”, shipyards and owners
 - o MD & SDoC preparation and maintenance for maritime suppliers
 - o Planning of green ship recycling facilities including consideration of organisation, budget, technical requirements, and hinterland infrastructure for new and existing facilities, etc.

In addition GSR has worked on the EU-funded project “ShipDIGEST” (Ship Dismantling Insight by Generating Environmental and Safety Training) funded by the European Commission / Leonardo da Vinci program. The main aim and objective was to assist the ship recycling industry by improving, through knowledge transfer, the various identified social and HSE issues by utilising innovative products, tools and vocational education and training (VET) from previous EU projects and from similar industries within the EU.

GSR Services was involved in the IMO – NORAD Project on Ship Recycling - SENSREC WP 4 Part 1 and 2: “A review and upgrade of existing training courses on occupational health, safety and environmental issues and piloting of the new training materials - Training Needs Assessment and Curriculum Development” for ship recycling industry of Bangladesh.

GSR has carried out its services in various regions like Asia (e.g. China, India, Japan, Pakistan, Philippines, Singapore, Bangladesh), Europe (e.g. Germany, Gibraltar, Netherlands), and Africa (e.g. Cameroun, Gabon, Namibia). Besides numerous IHM preparations for new and existing ships GSR has developed the audit scheme and check routines for internal audits of ship recycling facilities by ISRA. For GL and ClassNK trainings for IHM Experts, persons who are preparing IHMs for ships, have been conducted around the globe as well as support provided for utilization of IHM in conjunction with ship recycling facility specific planning of safe and environmentally sound recycling of ships (Ship Recycling Plan preparation).

vi. Composition and qualifications

Henning holds a degree in Environmental Engineering (Diplomingenieur, Dipl.-Ing.) specialized in waste management and is engaged in various fields of maritime environmental protection since the year 2000.

He started his career with GAUSS gem.mbH in Bremen, a research institute for environmental protection and safety in shipping, as a specialist in maritime waste management. Later he was a seafarer (environmental officer) on board a German cruise vessel implementing a comprehensive environmental compliance plan.

In 2005 he joined Germanischer Lloyd, as “Global Head of Practice - Ship Recycling” and was responsible for the development and establishment of all ship recycling related services of Germanischer Lloyd (GL) in line with the Hong Kong Convention (HKC) to which development he has contributed in parallel. He has created a comprehensive ship recycling service portfolio for GL which can't be found elsewhere.

Henning has established Green Ship Recycling Services (GSR Services) in January 2011 for supporting independently all stakeholders for cost effective preparations and practical fulfilment of HKC and other applicable requirements, from cradle to grave.

He is frequently chairing and speaking at various international conferences and is an internationally recognized expert for ship recycling. A list of his publications is provided in Annex 1.

After stepping back as founding & board member of International Ship Recyclers Association (ISRA) in March 2012 he has established the “International Hazardous Material Expert Association” (IHMA e.V.) in 2013. The IHMA compiles knowledge and technical expertise of leading “IHM Experts”, creates a global network for offering highly qualified IHM services to the shipping industry, closes gaps in existing technical guidelines of IMO, and establishes highest standards and provides guidance to all stakeholders like flag and recycling states, classification societies, P&I clubs, insurance companies and others.

Henning Gramann holds the following positions:

- CEO GSR Services GmbH
- Guest professor at WMU
- Chairman & Treasurer of IHMA
- Project leader for ISO 30000 series
- Technical advisor for the German Federal Ministry of Transport..., representing Germany at MEPC of IMO

• Memberships / other professional positions

- 2014 – to date: Guest professor at World Maritime University, Malmö/Sweden
- 2013 – to date: International HazMat Association - IHMA e.V.: Founder, chairman, and treasurer
- 2011 – to date: Appointed technical consultant for International Maritime Organisation (IMO)
- 2007 – to date: Consultant for the German Federal Ministry of Transport, Building and Town Development on ship recycling at the Maritime Environmental Protection Committee of the International Maritime Organisation (IMO)
- 2007 – to date: National Expert and ISO Project Leader of ISO / DIN e.V. for ISO 30.000 series on Ship Recycling, Team Member for Development of international standards for shipboard management of wastes
- 2007 – 2012: International Ship Recycling Association – ISRA: Board and founding member

Approvals of GSR and staff

GSR Services is Service Supplier for preparation of IHMs approved by BV and RINA and full member of IHMA. GSR staff holds the status as Approved IHM-Experts from DNVGL and ClassNK.



Awards:

- GSR Services has been awarded
 - “Lünale Impuls - Gründerpreis 2012”:
“Most innovative business start-up in the region”
 - ACQ5 Global Awards 2018:
“International – Niche Company of the Year (Recycling) 2018”



- Henning Gramann has received the following awards:
 - European CEO-Magazine:
“Best CEO in the international ship recycling industry, 2017”
“Best CEO in the international ship recycling industry, 2018”
 - Business Worldwide:
“Most Innovative CEO | Ship Recycling Industry 2017”
 - European Business Magazine:
“CEO of the year Green Shipping, 2017”
 - AI-Global Excellence Award 2018:
“Best Ship Recycling Services Firm 2018”
“CEO of the Year 2018 - Ship Recycling”
 - Capital Finance Award:
“Most Innovative Maritime CleanTech Leadership - Germany 2018”
 - ACQ5 Global Awards 2018:
“Germany – Gamechanger of the Year (Recycling) 2018”





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08 February 2019

GSR Services GmbH
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GERMANY

Attention: Mr Henning Gramann

RECYCLING OF HMNZS ENDEAVOUR

Dear Sir,

This letter is to express the New Zealand Defence Force's (NZDF) immense gratitude for GSR Services' (and your related Indian company Guideship) support in the recent recycling of ex-HMNZS ENDEAVOUR in Alang, India.

ENDEAVOUR was the first ship in the world to be fully recycled under the *Basel Convention Controlling Transboundary Movements of Hazardous Wastes and their Disposal*. NZDF simply could not have achieved this quite momentous achievement without your professional involvement and assistance.

You and your companies provided timely, well founded advice that assisted the NZDF along its journey. We found GSR and Guideship to be highly principled, yet flexible, in all dealings, not only with the NZDF but also all other parties. This ethic generated a mutually beneficial work environment in solving challenges and achieving the aims of this project.

It would be my pleasure to have any future client contact me for a personal reference if desired.

Yours sincerely,

Christopher. M. Calvert
Programme Director Fleet Disposals
NZDF National Disposals Office
Defence Logistics Command
christopher.calvert@nzdf.mil.nz

Annex 1: List of publications

2018

- “The Rise of Green Shipping” European Business Magazin, 04.01.2018
- “Get on board with GSR”, The European, 04.01.2018, page 44-45
- “Ship Recycling 2.0”, Presentation at 6th Ship Recycling Conference - ACI, London, 25.01.2018
- “Abwrackung - von der Hölle zur nachhaltigen Industrie“, Presentation at Nautischer Verein Kappeln-Schlei e.V., 05.03.2018
- „Environmental Supervision Panel“, Tradewinds Ship Recycling Forum, Hamburg, 7-8.03.2018
- “MeyerWerft raises Recycling Standards”, Tradewinds, 2018-03-20, <https://www.tradewindsnews.com>
- “Compliant planning for ship recycling”, GST & Shipping 2030 Europe, Conference, Copenhagen, 23.03.2018
- “Grünes Recycling und schwarze Schafe“, Hansa Shipping Magazine, 04-2018, page 58/61
- “Maritime Interview with Henning Gramann“, KNeCT365, May 2018
- “Steadying the ship“, EuropeanCEO Magazine, 08.2018, page 36f
- “Utilization of idle areas: is ship recycling an option?“, Port and Terminal Management Forum, Hamburg, 07.06.2018
- “Safe Ship recycling – Navigating the Regulatory Maze“, GST online magazine, page 11-12, 08.2018
- “Background im Porträt“, Tagesspiegel online, Energie & Klima, 23.08.2018
- “New regulations will improve ship recycling, but shipowners must help“, EuropeanCEO, 5 pages, 08.2018
- “Image und Wirklichkeit – was unsere Schifffahrt mit asiatischen Schiffsfriedhöfen verbindet“, Presentation at Club von Lüneburg, 04.09.2018
- „Panel Talk & Presentation of recycling of Navy Tanker“, SeaDevCon ´18, Hamburg, 06.09.2018
- “Shipping has to rush for Hong Kong and Brussels“, CleanerSeas Magazine, page 20, 09.2018
- “Compliant Recycling of a Navy Tanker“, own online publication, 09.2018
- “Responsible ship recycling starts with getting the IHM prepared“, Safety4SeaLog, 10.2018, page 36-37
- “Is shipping unaware of Hong Kong and Brussels?“, European Business Magazine, page 22-23, 14.11.2018
- “EU List of approved shipbreakers stirs controversy as D-Day looms“, Tradewinds, 14.12.2018

2017

- “IHM: Current status & best practice“, Green4Sea, issue 12, summer 2017, page 20
- “Abwrackberater aus der Heide“, VDI Nachrichten, 28. September 2017, Ausgabe 39
- “Green and safe ship recycling on the agenda“, Business Worldwide Magazine, Autumn 2017, page 51
- “Break it down“, European CEO Magazine, Summer 2017, page 34/35
- “The Rise of Green Shipping“, European Business Magazine, page 58-61

2016

Interview on Ship Recycling for The European magazine

Interview on Ship Recycling on Nov. 3rd, Hansa Shipping Magazine

“2017 Perspectives”, Gren4Sea online magazine, <http://www.green4sea.com/industry-needs-integrate-ihm-ship-recycling-planning/>

„Das Thema Asbest wird leider generell unterschätzt“, Green Shipping News online magazine, <http://www.green-shipping-news.de/green-ship-recycling-interview/>

“IHM Management: Time is running short to get Inventories of Hazardous Materials in place for EU-affiliated ships”, Interview by Frederik Erdmann, Shippax CFI

„Criticism of India yard methods unfair and incorrect”, Tradewinds, August 12th, 2016, page 16

“SOS auf hoher See: Verantwortung von Finanzinstituten im Schiffsfinanzierungsgeschäft”, contribution to imug-study, published on May 18th, 2016, download from: http://www.gsr-services.com/pdf/2016-05_imug_Studie_Nachhaltigkeitsrisiken_bei_Schiffsfinanzierungen_von_Finanzinsituten_2016.pdf

2015

„Scrap-Potenzial für Europas Werften?“, Hansa Shipping magazine, 04/2015, page 33ff

„IHM – Deadlines for shipowners”, VDR-intern, magazine of German Shipowners Association

Manifold presentations at international conferences, workshops and meetings

2014

„From cradle to grave“, Ship&Offshore magazine, ClassNK promotional supplement for SMM Hamburg, 09/14, p. 15ff

„Tod am Strand von Chittagong“, impuls magazine 10/14, page 34ff

„Schadstoffe im Blick - Umsetzung neuer EU- Schiffsrecyclingvorschriften im Neubau“, Kiek Ut, Meyer Werft staff magazine

“Nachhaltigkeit: Stoffkreisläufe im Fokus”, Im Dialog, Meyer Werft supplier magazine

“Hazardous Times in Europe?”, Hansa Shipping 08/14, page 70ff

“Welcome 2014! Developing scrapping to ship recycling” The Shipping Tribune, online magazine

Manifold presentations at international conferences

2013

“Professionals unite for high quality HazMat surveys”, CleanerSeas, autumn/winter ´13, page 14

„Joint NK-IRS IHM Expert Training held“, SNM Events Magazine, page 38

Manifold presentations at international conferences

2012

„Personalien“, Deutsche Seeschiffahrt, 12/2012, page 8

„Marshallplan als Initialzündung“, Lüneburger Landeszeitung, No. 288, 8.).12.2012, page 41

„Die Umweltdetektive aus Lüneburg“, Hamburger Abendblatt, 19.11.2012, page 26

„Schifffahrt: Abwracker sind die Krisengewinner“, www.zeit.de/wirtschaft/2012-07/abwracker, 07/2012“

“Gutes Recycling inklusive Entsorgung kostet mehr“, Deutsche Seeschifffahrt, 06/2012, page 80-81

“Dank der Schifffahrtskrise floriert die Abwrackindustrie“, Deutsche Seeschifffahrt, 06/2012, page 74-79

“Scots snub green recycling push as focus shifts to continent“, Tradewinds, 9 March 2012, page 21

“Asbestos failure by class societies“, Tradewinds, 10 Feb. 2012, page 1 & 3

2011

“Grünes Schiffsrecycling“, Deutsche Seeschifffahrt, 12/2011, page 28-31

“Why life cycle considerations have to go beyond known boundaries“, Hansa International Maritime Journal, Vol. 148, No. 10, October 2011, page 40-46,

Manifold presentations at international conferences

2010

Manifold presentations at international conferences

2009

“Disposal and Recycling of HSC Materials“, Journal of Ship Technology, Vol. 5, No. 2, July 2009, page 1-12

2008

MEPC Submission No. 58/3/10: “Utilization of applicable threshold levels relevant for the preparation of Inventory of Hazardous Materials“(Submission by Germany)

MEPC Submission No. 58/3/2: revised “Draft Guideline for the Development of the Inventory for Hazardous Materials“ (joint Submission of Germany and Japan)

“Shipowners must face new recycling rules“, Oils&Fats International, March 2008, Vol. 24 No. 3, page 37f

„Breaking up is hard to do“, The Swedish Club Letter, March 2008, page 10f

2007

“More than old iron“, Shipbuilding Gazette, Issue 18, page 20, Sweden

“Disposal and Recycling of HSC Materials“, Henning Gramann, Karsten Fach, et al, GL Hamburg/Germany

“Give me a break“, Shipping World & Shipbuilder, July/ August 2007, page 35ff

“Ship-Building Development and Research Strategies for Useful Fulfilment of Ship-Dismantling Processes“, Joint Project of Turkish Undersecretariat for Maritime Affairs and Germanischer Lloyd for the period 2006/2007

„Tankers on the Beach“, GL-Tankermail, Issue 01/07, p. 6f

“Mehr als altes Eisen“, THB, 20.04.2007, page. 14f

MEPC Submission No. 56/3/2: “Draft Guideline for the Development of the Inventory for Hazardous Materials“ (joint Submission of Germany and Japan)

“Die Marschrichtung ist klar“, GL-customer magazine Non-Stop, 02/07

“Müll über Bord?“ / „Waste overboard“ / „Gemilerden Denizlere Atilan Cöpler ve Atıklar“, GL-customer magazine Non-Stop, 01/07

2006

various presentations at international conferences e.g.: China, Portugal (EMSA), USA, United Kingdom (incl. IMO), Belgium, Germany, Bangladesh, India, etc.

2005

„Maritime Waste Management“, Seminar of GL-Academy, Germanischer Lloyd

2001

“Maritime Waste Management for Designated Persons“, GAUSS gem.mbh

2000

Diploma Thesis "Optimization of Solid Waste Management in German Merchant Ports“, GAUSS gem.mbh

1999

Chapter on TBT-contamination of marine mammals in “TBT Hot Spot Report“, Greenpeace Australia