

江门市中新拆船钢铁有限公司

Jiang Men Zhong Xin Shipbreaking & Steel CO.,LTD

绿色拆船是拆船企业的发展方向

Green shipbreaking is the develop direction
of shipbreaking enterprise

江门市中新拆船钢铁有限公司
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绿色拆船，奉献环保
Green shipbreaking , Environmental protection



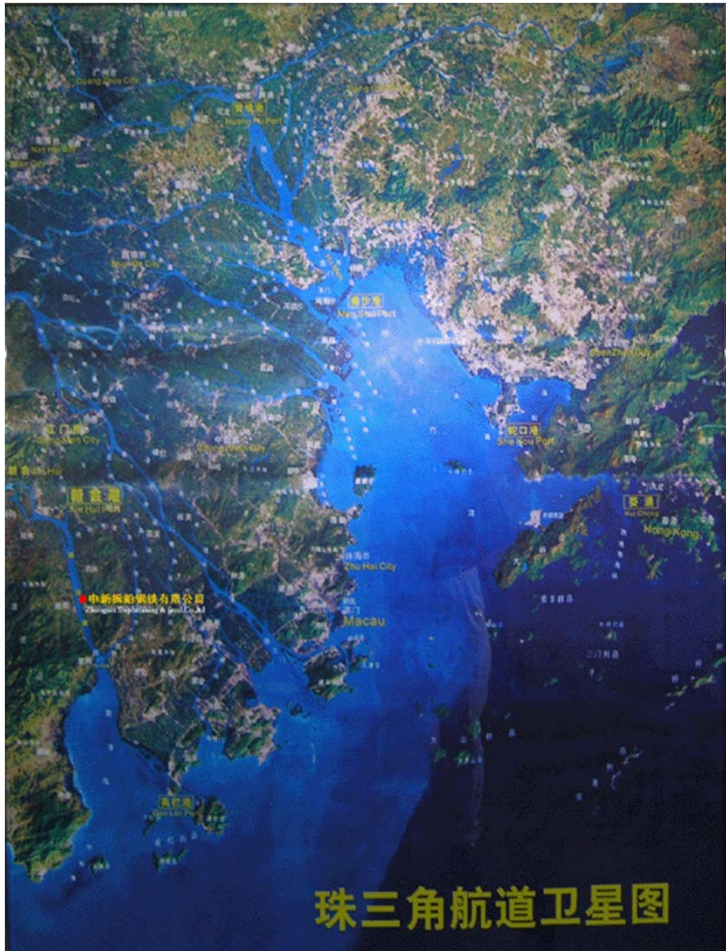
公司简介---概况

Brief Introduction of Zhongxin

- 成立于1984年。
-Founded in 1984.
- 占地面积：400,000多万平方米，厂房面积：20,000平方米
-Total area is over 400,000square meters with 20,000square meters of construction.
- 海岸线全长：1,600米，码头水深6—7米。
-The coast line is 1,600M long, depth of water is 6---7M
- 固定资产投资达2.5亿元。
-The fixed asset investment reached RMB250,000,000.
- 拆解工艺：码头拆解法。
-We dismantle alongside our dock using a floating dismantlement system.
- 码头拆解能力：码头可同时靠泊拆解七条废钢船。
-Seven ships for 25,000lightweight each one can be scrapped simultaneously.
- 年拆解能力：拆解能力50万轻吨。
- Our capacity for ship scrapping is over 500,000 LDT per year.

公司简介---地理位置

Geographic Location



位于中国广东省江门市新会港，
北纬 $22^{\circ} 18'$ ，东经 $113^{\circ} 04'$ 。

Located in the east beach of
Yinzhou Lake of Xinhui port in
Jiangmen city,Guangdong
Provice, China , $22^{\circ} 18'N$,
 $113^{\circ} 04'E$.

公司简介--- EHS方针

Our Policy of Environment, Health and Safety

- “中新”公司环境和职业健康安全方针：
 - * 以法规为准绳，全员参与作保证；
 - * 以安全为基石，身体健康是根本；
 - * 以环境为依托，预防为主最重要；
 - * 以改进为目标，确保可持续发展。

Our policy of environment, health and safety at 'Zhong Xin' is to use rules-based criteria combined with staff participation; with safety as its basis and health as the primary aim; with environment as the focal point and caution as our guide we aim at constant improvement to ensure continual development.



安全是为我们家庭幸福
环保是为我们子孙后代
Safety for family happiness, and to
leave a green environment for coming
generations.

公司简介---执行的拆船标准

Standards Followed

- 《绿色拆船通用规范》（WB/T1022-2005）
- --Green ship recycling general regulation(（WB/T1022-2005）, issued by National Development and Reform Commission of the People's Republic of China.
- IMO 公约
- ILO 公约
- 巴塞尔公约(Basel Convention)
- 及其他相关的国际、国家的法规、政策等。
- - Other related National and international treaties.

公司简介---公司通过的认证

2004年通过ISO14001认证



'The certificate of ISO 14001: 2004 passed in 2004

公司简介---公司通过的认证

2004年通过OHSASISO18001认证



The certificate of OHSMS 28001 passed in 2004

公司简介---公司通过的认证

2010年通过ISO9001认证



The certificate of ISO 9001 passed in 2010

公司简介---公司通过的认证
2010年获得中国“AAAA”级绿色拆船企业证书

The certificate of green shiprecycling yard (level IV) passed in 2010



公司简介---厂容、厂貌（过去、现在）

The Environment of 'Zhongxin' (past & present)



Past (过去)

“中新”经过20多年的发展努力，发生了巨大的变化。从图片中可以看到过去与现在的对比。

During more than 20 years' development, 'Zhongxin' has changed a lot.



Present (现在)

The pictures herein are the contrast past and present environment of 'Zhongxin'.

绿色拆船---污染物管理

Green shipbreaking---Waste management

污油水的收集与处理 (Oily & wastewater collection and treatment)

江门市中新拆船钢铁有限公司污水处理中心
THE SEWAGE DISPOSAL CENTER OF JIANGMEN ZHONGXIN SHIPBREAKING & STEEL CO., LTD

本工程于2004年11月开标动工, 至2005年12月竣工。这项工程是根据我公司各类废水的特点, 经环保部门组织专家论证, 选用先进合适的污水处理技术, 废水处理高效优质达标排放, 有效地保护水环境, 保护母亲河, 具有显著的环境效益。

工艺流程说明:

- 1) 隔油处理: 拆卸现场的废水经排水系统汇集后, 通过格栅去除废水中的漂浮物后流入集水井, 再用潜水泵提升至调节池。池面上的漂浮物用刮油机收集后用皮带输送机运到油池。废水经过隔油池后浮油被刮板打入油池中。
- 2) 调节处理: 废水经隔油池后流入调节池, 调节池起着调节水量均匀水质和衔接下一步处理的作用。
- 3) 气浮处理: 去除废水中的悬浮物和乳化油。先将调节池的废水提升到混凝池和絮凝池, 再在混凝池和絮凝池分别加入碱、PAC和PAM药剂混合搅拌反应30分钟, 然后让废水流入气浮池, 利用气浮原理把废水中的小颗粒悬浮物及油类物质形成浮渣, 令其漂浮在废水的表面, 再用刮渣机去除这些浮渣。
- 4) 生化处理: 将经气浮处理后的废水引入两个SBR池进行生化处理, 在生化池培养微生物, 利用微生物将废水中的有机物分解。
- 5) 排放: 废水经上述工艺处理后, 就能达标排放。

工艺流程图
THE TECHNOLOGICAL FLOW CHART

The project of the sewage disposal center was started on Nov 2004 and was completed on Dec 2005. We adapted the updated and appropriate sewage disposal technology according to our shipyard's kinds of the sewage characteristic and was concluded by the experts from some Environment Protection Department. It is effective and remarkable environment protection benefit that the project can protect our water resources and mother river based on high efficiency and high quality discharge sewage.

THE STATEMENT FOR THE TECHNOLOGICAL PROCESS

(1) Oil Separating Disposal: After the sewage from shipyard ground was collected by the drainage system and discharged into the tank basin, at the same time the sewage floater will be wiped off by the grate, and those will float the sewage to the oil separating tank by underwater pump. The slip from the dissolutes vessel, was collected by the close oil skip and pumped in oil separating tank directly later, the floating oil will be found in the pool after oil separating.

(2) Coagulation Disposal: The sewage will discharge into the regulating reservoir after oil separating, the regulating reservoir can adjust the quantity of water combine and link up the next step disposal.

(3) Flotation Disposal: It just wipe off sewage floater and cut oil. First it will float the sewage to coagulation basin and flocculation basin, and add the ALKALI, PAC and PAM medicine in the above tank is separated for mixing ground for 30 minutes, and then let the sewage discharge into the flotation tank and make the small particles floater and oily substance to come into being soon in order to float at the surface of sewage based on flotation theory, then it will be wiped off by the skimming residue machine.

(4) The Biochemical Disposal: The sewage will be discharge into two SBR pool for biochemical disposal after the air floating disposal, we will cultivate the microorganisms for absorbing and decomposing the organism.

(5) The Discharge: The sewage can be discharged at a set standard before was disposed by shore technology.

污油水处理中心
Oily & Wastewater
Disposal Center

2006年05月正式投入使用;
-Put into use
in May, 2006;

投资: 人民币350.0
万元
-Investment:
RMB3,500,000

日处理水能力: 150
吨。
-Disposal capacity
150tons per day

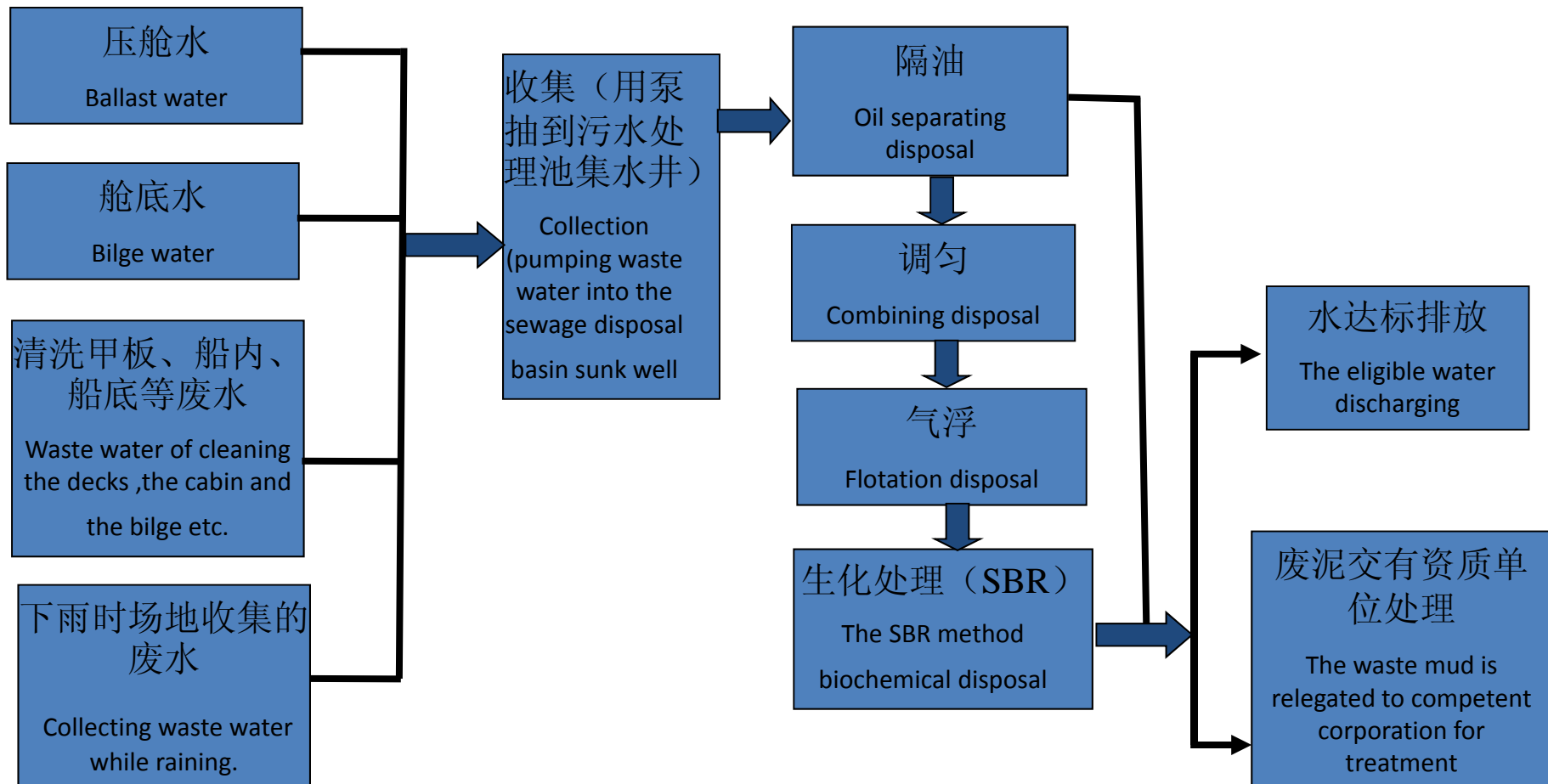
处理依据: 按《污水处理工艺流程图》、《污水处理中心操作规程》
Disposal according to: The technological flow chart of oily & wastewater disposal and the operation regulations of oily & wastewater disposal center

绿色拆船---污染物管理

Green shipbreaking---Waste management

污油水处理流程

The operation process of the oily & wastewater disposal



绿色拆船---污染物管理

Green shipbreaking---Waste management

经处理后的污水(The oily & wastewater after being treated)



排放口和污水的最终去向。

排放口标志 (The discharging outlet)



污水经处理达标后排 (After being treated to meet the State's discharge standard, will be discharged).

绿色拆船---污染物管理

Green shipbreaking---Waste management

废泥的处理（Waste mud treatment）



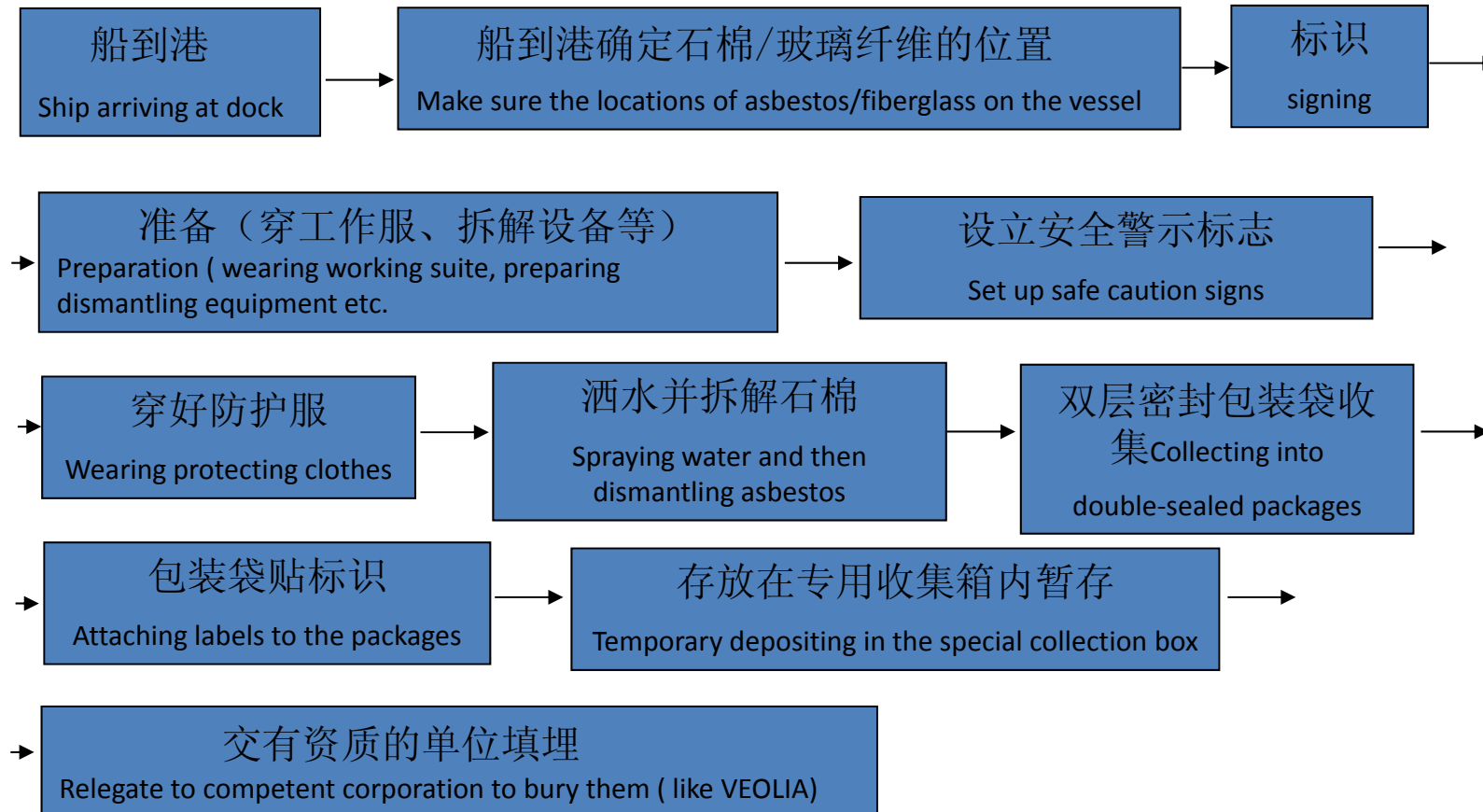
污泥经收集、压块
后交危废处理机构
处置

The waste mud after
being collected and
pressed treatment by
the mud recycling
facility will be handed
to the compete
company for further
disposal.

绿色拆船---污染物管理

Green shipbreaking---Waste management

石棉的处理(Asbestos Treatment)



石棉处理流程

The operation processes of asbestos disposal

绿色拆船---污染物管理

Green shipbreaking---Waste management

石棉的处理(Asbestos Treatment)



洒水 (Spray water)

拆除石棉
--现场拆解过程 (1人喷水
1人拆1人监督)
Dismantling site: (3 person)
(one person spray water,
one dismantling,
one supervision)



正在拆解石棉 (Dismantling asbestos)



正在拆解石棉 (Dismantling asbestos)



正在拆解石棉 (Dismantling asbestos)



正在拆解石棉 (Dismantling asbestos)

绿色拆船---污染物管理

Green shipbreaking---Waste management

石棉的处理(Asbestos Treatment)



石棉二次拆解中心

The asbestos secondary dismantling center

“中心”的建成:

- 1、降低了石棉拆解的难度;
- 2、石棉拆解的效果更好。

This center:

- 1.Reduces the difficulty of asbestos dismantling;
- 2.Makes the asbestos removal more effective.

绿色拆船---污染物管理

Green shipbreaking---Waste management



石棉拆解工人冲洗室
Bathing room for asbestos
Removal workers

进入专门的石棉拆解浴室冲洗
Entering the special worker's
bathroom for dismantling asbestos



冲洗工作服
Swirl the working suit with clear
water



洗工作服
Washing working suit



换工作服
Changing working suit



洗澡
Bathing

绿色拆船---污染物管理

Green shipbreaking---Waste management

去除表面油漆（Rough Paint Treatment）



2007年完成施工并成功试运行。

This system was finished construction and successful trial operation in the year of 2007.

采用抛丸/喷砂设备来去除金属表面油漆。

By adopting the latest 'steel ball/sand 'blasting system to remove pain on ship plates.

绿色拆船---污染物管理

Green shipbreaking---Waste management

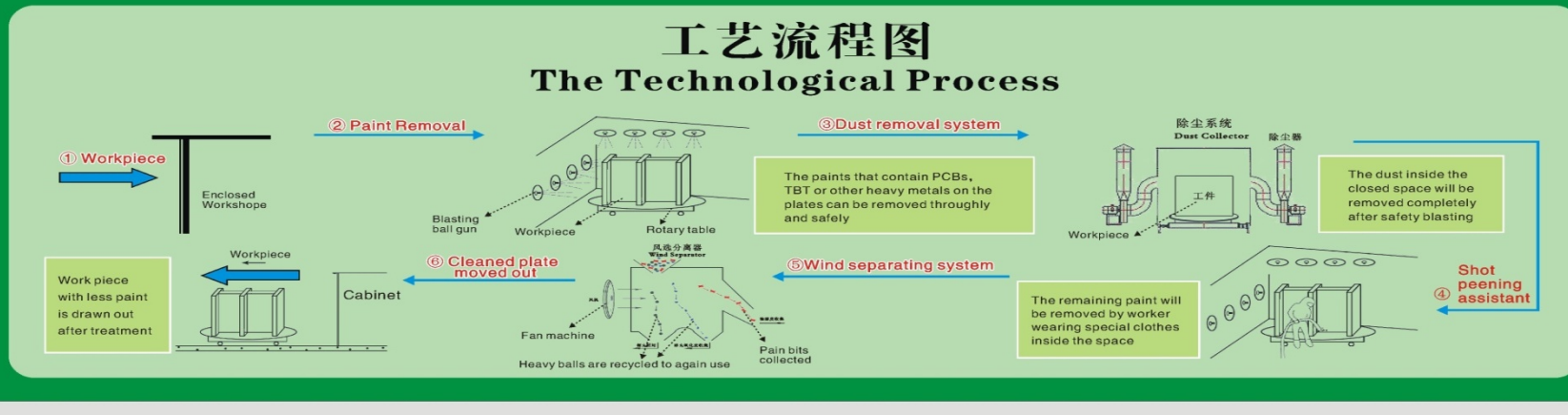
去除表面油漆（Rough Paint Treatment）

“中新”金属表面处理中心（去除油漆）

THE METAL SURFACE DISPOSAL CENTER OF ZHONGXIN (PAINT REMOVAL SYSTEM)

本系统是由我公司与专业公司共同研发制造，采用高速抛丸和喷丸结合的工艺，进行金属表面处理和去除油漆。处理工件的最大尺寸为6M×6M×4M，最大重量为10MT，处理效率为30MT/小时。其工作原理是，通过高密度的抛丸和喷丸技术对工件表面的油漆、氧化皮等进行清理达到目的。工作时钢丸和氧化皮、油漆等被收集到自动分离机分离，钢丸循环使用，油漆粉尘作危险废物处理。

The system is co-developed and manufactured by our company and another professional counterpart. By adopting the high-speed Shot Blasting technology combined with shot peening technology to clean the metal surface and remove paint, this system can deal with a metal work piece with largest size of 6M×6M×4M, maximum weight of 10MT and work efficiency of 30MT per hour. Using high-density Shot Blasting and shot peening technology directed at the paint and metal oxidized bits on the surface of workpiece, heavy balls, oxidized bits and paint can be separated and collected to the automatic separating device, and heavy balls can be recycled while paint and dust will be disposed as hazardous waste.



金属表面油漆处理中心工艺流程图
The Flow Chart Of the Rough Paint Treatment

绿色拆船---现场监督 Green shipbreaking---Site supervision

绿色拆船监督机构(The organization of site supervision for Green Shipbreaking)



绿色拆船现场监督
(Site Supervision)



绿色拆船监督
机构办公室
(Site Office)



绿色拆船---交流经验

Green shipbreaking---exchange experience



参观检查
(Visiting &
Inspection)



在会议上交流经
验
(Exchanged
experience at the
meeting)



绿色拆船---员工劳动防护设备 Green shipbreaking---PPE for workers

提供适合的劳动防护设备及设施

Provide Employees With Proper Protection Facilities and Equipment



员工上岗作业前必须分工种穿戴好合适的防护设备

Before start to operation the workers must wear PPE properly



绿色拆船---员工培训及教育

Green shipbreaking--- Training & Education



Training Contents

A, For all employees, the training includes the policy, target, procedure requirement, the preparation and response of the emergency, MSDS etc. of the environmental protection and occupational health, and safety consciousness.

For management level, the details of the procedures of all related management should be trained for enhancement.

B, Professional technical ability training includes the knowledge and awareness of the rules for safe operation, environmental protection and occupation health as well as the relevant laws and regulations and so on.

C, The training contents of some special positions should be in accordance with the national laws and regulations, and the certificates are to be kept by Personnel administrative department of the company.



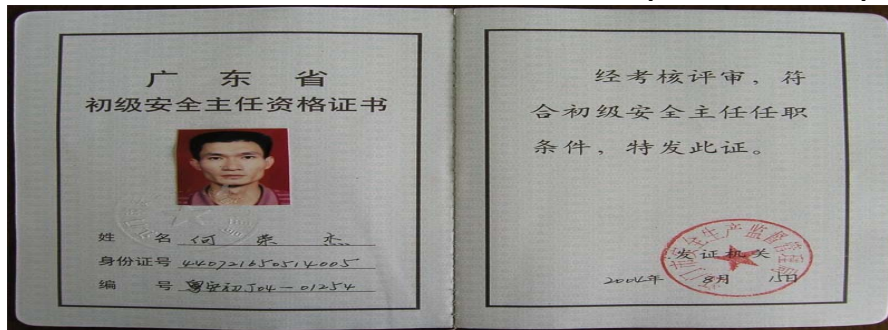
定期对员工进行培训
Conduct periodical training for all employees

绿色拆船---员工培训及教育

Green shipbreaking--- Training & Education

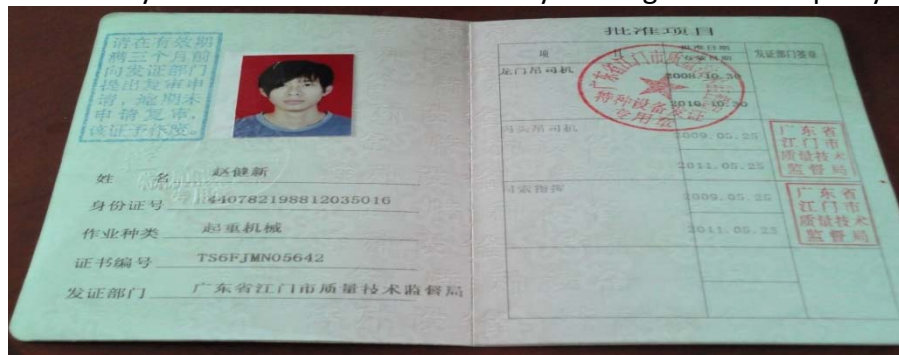
员工必须持证上岗

Qualified Certificate is Required for Special Technical Positions



安全管理人员--注册安全主任
(发证机构: 江门市安全生产监督管理局)

The Certificate of Registered Safety Director
Issued by Administration of Work Safety of Jiangmen Municipality



起重机械操作人员证
(发证机构: 江门市质量技术监督局)

The Lifting Operator's Certificate Issued by the Bureau of Quality and Technology Supervising in Jiangmen, Guangdong Province



测爆员资格证书
(发证机构: 中国船级社广州分社)
The Explosive Detector's Certificate Issued By China Classification Society, Guangzhou Branch

绿色拆船---应急演习 Green shipbreaking--- Emergency Drill

--每年制定应急演习计划

(Planned emergency rehearsals every year)

--每次完成后编制应急演习报告

(After the rehearsals, a summary and report are conducted)



绿色拆船---员工体检

Green shipbreaking--- Physical examination



体检频率：每年一次
Frequency: Annually

体检涉及人员：全体员工
All employees are required to have a physical examination

绿色拆船---员工体检

Green shipbreaking--- Physical examination

健康保健室

On-site clinic - providing health protection services for employees



Medical and health room located in the yard



Doctor is on duty

绿色拆船---生产设备

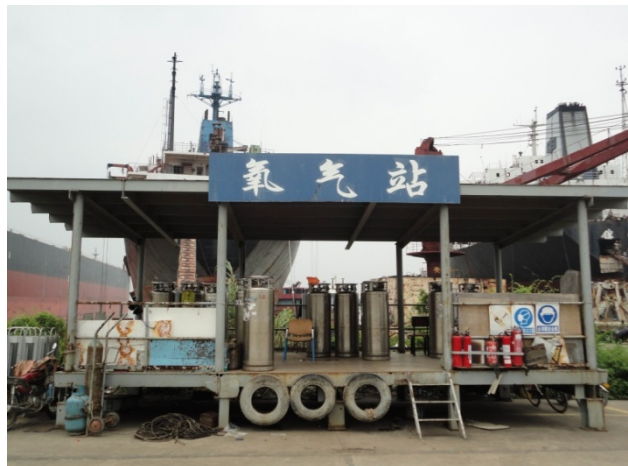
Green shipbreaking--- Production equipment

天然气站及氧气站，用于切割
Oxygen station& Natural Gas station (for cutting)



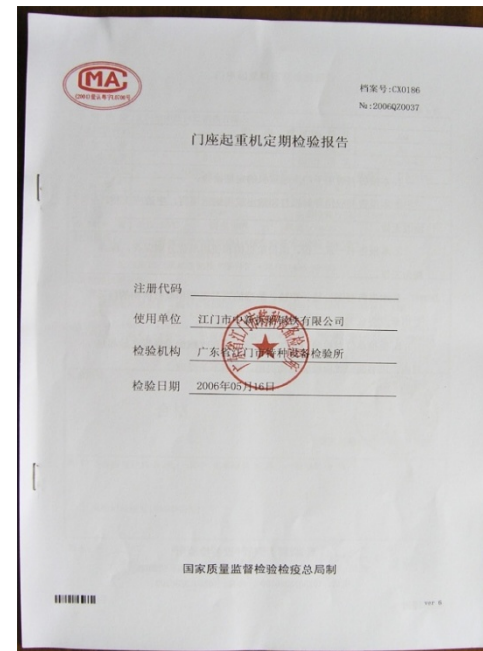
- Oxygen and Natural Gas supply

(using the natural gas for cutting, which will help greatly to build a safer and better working environment.) .



绿色拆船---生产设备 Green shipbreaking--- Production equipment

起重设备
Lifting machines



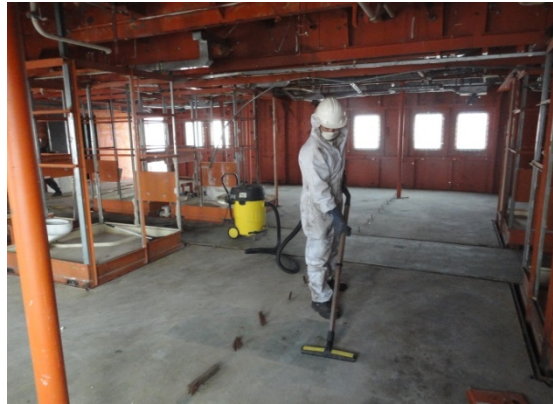
特种设备检验合格报告（每年检验一次）
The Qualified Inspection Report for Special
Equipment From the Bureau of Special Equipment
Inspection（frequency of Inspection: Annually）

绿色拆船---生产设备

Green shipbreaking--- Production equipment



Use high-pressure water jet to remove residues



Use vacuum cleaner to clean asbestos dust



Explosive detector with qualified record

-Equipments can be put into use only after be confirming qualifications. In addition, *The Acceptance Record* of equipment and the *Equipments Detailed List* must be filled in completely.

- Establishing the operating regulations for all equipments, and assuring the workers are trained and do operate equipment following these regulations

绿色拆船---需要多方合作

Green shipbreaking--- Cooperation is the Way!

- -我们真诚地希望能够和船舶建造商、船东、国际组织机构，如IMO、ILO等以及其他的拆船公司合作，共同开发研究先进的绿色拆船技术，创造一个更环保、更美好的绿色拆船行业！
- - We sincerely wish to cooperate with ship manufacturers, ship owners, the IMO and the ILO, other international organizations, as well as with other ship recycling companies to develop modern *Green* ship breaking technologies to serve our industry in greener and better ways!

- -我们相信全球性的合作是成功发展先进绿色拆船行业的有效方式！
- - We believe that global cooperation is the way to successful development of the modern green ship breaking industry for our world!

“更多回收，更美环境，更好的生活”
是我们始终追求的目标

‘Better Recycling, Better Environment, Better Life’
is Our Continuous Pursuit



Thank you!