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United Nations Industrial Development

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FINAL REPORT

Composed by:



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Description of supplementary works done after putting BERWASH 1-6 equipments into operation

Works done by SLDQ:

- Final assembly of temporary connection is done
- The main water-supply pipe-line has been installed
- suction – according to our documentation – assembly of suction air ducts on equipments BERWASH 2 –6 is done
- suspension tools – on the basis of pattern and documentation - are done

Works done by METALLUX:

- assembly of suction air ducts onto Berwash 1, 4, 5,
- assembly of cover rubber and rubber strips under the brush sealing
- change of out of order KSB water pump
- placing of drain valve into the degreasing-store bath of BERWASH 1
- The works done by the request of SLDQ have been written in the commissioning protocol on the basis of experiences received during operation

Our suggestion for SLDQ to do the followings:

- Installation of BERWASH 1 suction ventilator into suction network
- Re-directing the gas-heating's condense line onto steam-stimulator
- Doing the attachment onto plated heat –changer, installed to equipment BERWASH 5
- application of degreasing materials advised by the technologist designer,

Remarks made in the closing protocol:

- Teaching of programming was not our task, however, in case of problems and faults we are at Chinese technicians' full disposal to train them.
- We are arranging to provide you with spare heating cartridge refills
- Your remarks on filters and ultra sound vibrants have been forwarded to our supplier, Tauss GmbH. We will inform SLDQ technicians about their expert opinion.

清洗机 1—6 后续工作时间表 (暂定)
 Time Schedule of Supplement Works of Washers 1-6 (Preliminary)

工作内容 Activities	责任方 Responsible	日期 Date														
		2000.11														
		04 六	05 日	06 一	07 二	08 三	09 四	10 五	11 六	12 日	13 一	14 二	15 三	16 四	17 五	
1 补装清洗机 1、4、5 的蒸汽管道 Erection of supplementary vapor suction ducts for Washer 1, 4, 5	Metallux SLDQ	■		■	■	■	■									
2 安装清洗机 1、4、5 的橡胶隔离片 Assembly of rubber curtain for Washer 1, 4, 5	Metallux SLDQ		休	■	■	■	■				休					
3 更换清洗机 3 的 NT 监视器 Change of NT monitor to Washer 3	Metallux SLDQ		息	■							息					
4 更换 KSB 水泵 Change of KSB water pump	Metallux SLDQ		H	■							H					
5 清洗机 2、3、6 试运行 Trial operation of Washer 2, 3, 6	Metallux SLDQ		O		■	■	■				O					
6 清洗机 1、4、7 试运行 Trial operation of Washer 1, 4, 5	Metallux SLDQ		L			■	■	■	■	■	L					
7 拟写验收报告; 移交设备 Protocolling and hand-over of equipment	Metallux SLDQ		I								I	■	■	■	■	
			D								D					
			A								A					
			Y								Y					

Memorandum about hand-over of document of realization
设备改进后相关资料移交备忘录

Made in office of Double Dragon Refrigerator Compressor Factory in Yuhuan, China
Nov. 11, 2000
中国玉环, 浙江双龙电气集团有限公司
2000.11.11

List of documentation presented and given-over:
已递交/移交资料清单:

Berwash 1

- Technical instruction and maintenance manual
技术说明及维修手册
- Drawings of unit 装置图纸:
 - layout plan 布置图
 - conveyor track line drawing 输送机运行轨道图
 - electric circuit diagram 电路图

Berwash 2

- Technical instruction and maintenance manual
技术说明及维修手册
- Drawings of unit 装置图纸:
 - layout plan 布置图
 - electrical documentation with circuit diagrams
电气相关资料及电路图

Berwash 3

- Technical instruction and maintenance manual
技术说明及维修手册
- Drawings of unit 装置图纸:
 - layout plan 布置图
 - electrical documentation with circuit diagrams
电气相关资料及电路图

Berwash 4

- Technical instruction and maintenance manual
技术说明及维修手册

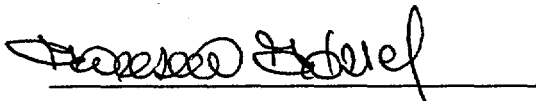
- Drawings of unit 装置图纸:
 - layout plan 布置图
 - conveyor track line drawing 输送机运行轨道图纸
 - electric circuit diagram 电路图

Berwash 5

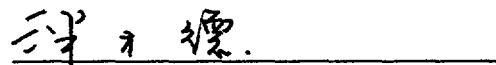
- Technical instruction and maintenance manual
技术说明及维修手册
- Drawings of unit 装置图纸:
 - layout plan 布置图
 - conveyor track line drawing 输送机运行轨道图纸
 - electric circuit diagram 电路图

Berwash 6

- Technical instruction and maintenance manual
技术说明及维修手册
- Drawings of unit 装置图纸:
 - layout plan 布置图
 - electric circuit diagram 电路图



Metallux, the supplier 供方



SLDQ, the acceptor 接受方

Closing Protocol 验收备忘录

Made: In official room of Yuhuan County Refrigerator Compressor Factory
(SLDQ) in Yuhuan, China November 13, 2000
中国玉环, 2000/11/13

Person in charge of SLDQ : Mr. Yuan Wei, Dept. Director
玉环工厂负责人: 袁伟先生, 部长

Person in charge of METALLUX: Jozsef Holczer, vice president
Metallux 公司负责人: Jozsef Holczer 先生, 副总裁

Subject: Supplementary works on washing machines 1-6, after the first commissioning, dated 27. April 2000.

主题: 继 2000 年 4 月 27 日第一次试车后, 对清洗机 1-6 实施的补充性工作。

The following works has been completed according to the reclamation of SLDQ, written in the above mentioned commissioning protocol:
按玉环工厂在上次试车报告中提出的要求, 实施了以下工作:

Paragraph 5 第五部分:

Liquidation of vapour leakage on Berwash 1,4 and 5
清洗机 1, 4 和 5 漏蒸汽

Activity 措施:

1.) assembly of suction air ducts with adjustable orifices along the washing tunnels.

沿清洗通道安装蒸汽收集管道

Drawing No 管道图号.: 99-19-03-18/a

99-19-03-14/a

2.) assembly of rubber strips under the brush sealing, along the tunnels
沿清洗通道安装橡胶隔离片

Drawing No 隔离片图号.: 99-1-03-14/a

3.) assembly of rubber strip-curtains onto the inlet, outlet and middle of tunnels

在通道入口、处理池间和出口处安装橡胶防护片

Drawing No 防护片图号.: 99-19-03-00/a

4.) there have been mounted 1 - 1set of vapour guide plate- appendix

在通道入口、出口处各安装了一套防止蒸汽流入车间的防护罩

The participants state the followings, concerning the reclamation points of protocol April 2000.

关于 2000 年 4 月签署的各备忘录提及的问题，解决如下：

Paragraph 1 第一段：

The heating of Berwash 1,2,3 had been planned, according to the written parameter tender. The assembly was made in accordance with the plan. The requested temperature of baths (60°C), what the system has to reach and hold by automatic temperature control.

按提供的参数，对 Berwash 1、2、3 的加热系统进行了设计，并按设计进行了装配。通过自动温度控制，系统已达到了处理池所要求的温度（60°C）。

The duration of heating up 加热时间: 3.5 - 4 hours 小时.

Paragraph 3 第三段：

The change of place of installation hadn't caused a significant changes in assembly costs in time of assembly, but the costs was risen, because the additional activity, over the supervision.

由于改变了安装位置，虽及时进行了安装，没有造成较大的安装费用，但仍产生了一定监管费用。

Paragraph 6 第六段：

Two pieces of KSB pump has been supplied by METALLUX, additionally.

One of the pumps was built in during the supplementary works, and the second one remained in the store, as reserve part.

Metallux 公司额外提供了 2 个新的 KSB 泵。一个泵已在工作期间安装到了系统上，另一个泵存放在储藏室，供备用。

Reply for the supplementary part, (dated 29. April) of commissioning protocol (27. April)

对上次备忘录（2000 年 4 月 27 日、29 日）中相关问题的处理结果：

Paragraph 1 第一段：

The vapour leakage has been liquidated 蒸汽泄露问题已解决

Paragraph 2 第二段：

The reserve motors have been delivered 备用电机已提供

Paragraph 3 第三段:

Protocol of laboratory is enclosed 软水分析报告已确认, 可用于清洗机。

Paragraph 4 第四段:

The required quantities of chemicals have been exactly given.

准确无误地递交了所要求使用的化学材料清单。

Paragraph 5 第五段:

The draining pipe with valve has been inserted into the degreasing bath of Berwash 1, for request and responsibility of SLDQ.

应玉环工厂的要求, 已给 Berwash 1 的脱脂槽安装了排水管道及阀门。

Paragraph 6 第六段:

The supplementary works required by SLDQ have been completed between 4th and 14th of November 2000.

已于 2000 年 11 月 4 日至 14 日期间完成了玉环工厂所要求的补充性工作。

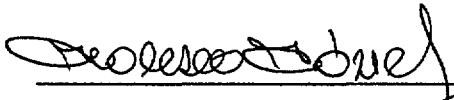
METALLUX completed the following works as well, simultaneously with the previous works:

同时, Metallux 公司还完成了以下工作:

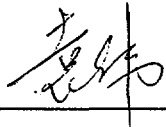
- cleaning of vertical rail of manipulator cart of Berwash 2,3, and 6
清理了 Berwash 2、3 和 6 机械手的立式滑轨
- repair of fan of drying bath of Berwash 3
修理了 Berwash 3 干燥池的风扇
- cleaning of cylinder and filter of Hydrocleaner serving for Berwash 4, 5
清理了 Berwash 4 和 5 油处理器的液压缸和过滤器
- change of monitor NT 11 on Berwash 3
更换了 Berwash 3 的监控器 NT
- insertion of water draining pipes into the house of vapour exhausting fans of Berwash 1, 4, and 5
给 Berwash 1、4、5 蒸汽抽风扇安装了排水管
- placing of drain pipe and valve (5/4") into the degreasing-store bath of Berwash 5, for request of SLDQ
应玉环工厂的要求, 给 Berwash 5 的脱脂存放槽安装了排水管和阀 (5/4")
- Putting into operation of Berwash 1 - 6 and teaching of operators, during the run of machines, on 8, 9, 10, 11, and 13. November, in presence of persons in charge of METALLUX and SLDQ
试运转了 Berwash 1 - 6, 并在设备运行期间的 11 月 8、9、10、11 和 13 日, 在双方负责人在场情况下, 培训了玉环工厂的操作人员。

The participants state, that the washing machines Berwash 1 - 6 can fulfill the technical requirements written by UNIDO, after the supplementations. The METALLUX Industrial Cooperative is handing over the units to SLDQ, and SLDQ acknowledge the acceptance of them.

双方一致认可，在实施相关补充性工作后，清洗机 Berwash 1 - 6 可完成 UNIDO 规定的技术要求。Metallux 实业公司已将全部设备/装置移交给玉环工厂；玉环工厂已验收了全部设备/装置。



METALLUX Industrial Coopérative
Metallux 实业公司



13/11/00

Yuhuan County Refrigerator Compressor Factory
玉环县冰箱压缩机厂

NOTES:

1) Regarding the PLC program, Metallux will send a specialist with related programs to Yuhuan site to install the control system in case of any faults on the system and to train the Yuhuan's technician.

关于 PLC 程序，如果程序有问题，Metallux 将派遣一位专家并携带相关程序到玉环工厂安装程序并培训玉环技术人员。

2) Metallux will supply Yuhuan twenty pieces of electric heaters as soon as they go back to Hungary.

Metallux 人员回匈牙利后，将立即向玉环工厂发送 20 件加热器。

3) One of the filters has been broken, so Metallux will send Yuhuan a new filter as soon as they go back to Hungary. And Yuhuan is not sure whether

there will be fault to the another filter and awaiting the resolution from Metallux to guarantee the stable function.

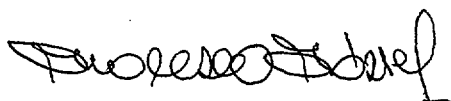
因一个过滤器已损坏，Metallux 人员回到匈牙利后，将立即发送一个新的过滤器给玉环。因玉环工厂无法确认另一个过滤器在今后的工作中是否会出现故障，因此等待 Metallux 提供解决方案已确保该过滤器的正常工作。

4) As to the hole size of the filter bag in the tank of Hydrocleaner, Metallux will give Yuhuan the reply after they get information from the Tauss, the supplier of the Hydrocleaner.

至于油处理器水池中的过滤袋的过滤精度，Metallux 将询问该过滤器供应商 Tauss 并通知玉环。

5) Metallux is responsible to discuss the problem of abnormal noise of the utrosonic washing machines with Tauss, the supplier and inform Yuhuan the resolutions to solve the said problem.

Metallux 有责任与超声波清洗机供应商 Tauss 讨论超声波噪声异常的问题并通知玉环解决该问题的方案。



13/11/00