



AIR COOLED CONDENSER USERS GROUP

Highlights: International Air-Cooled Condenser Conference

Xi'an, China

Andy Howell

**8th Annual Meeting of the Air-Cooled
Condenser Users Group**

October 3-6, 2016 • Dallas, TX







小寒

小寒
天气寒冷

冬至

冬至
太阳直射南回归线
北半球白昼最短
夜最长

大雪

大雪
天气寒冷
降雪

小雪

小雪
天气寒冷
降雪

立冬

立冬
天气寒冷
降雪

霜降

霜降
天气寒冷
降雪

秋分

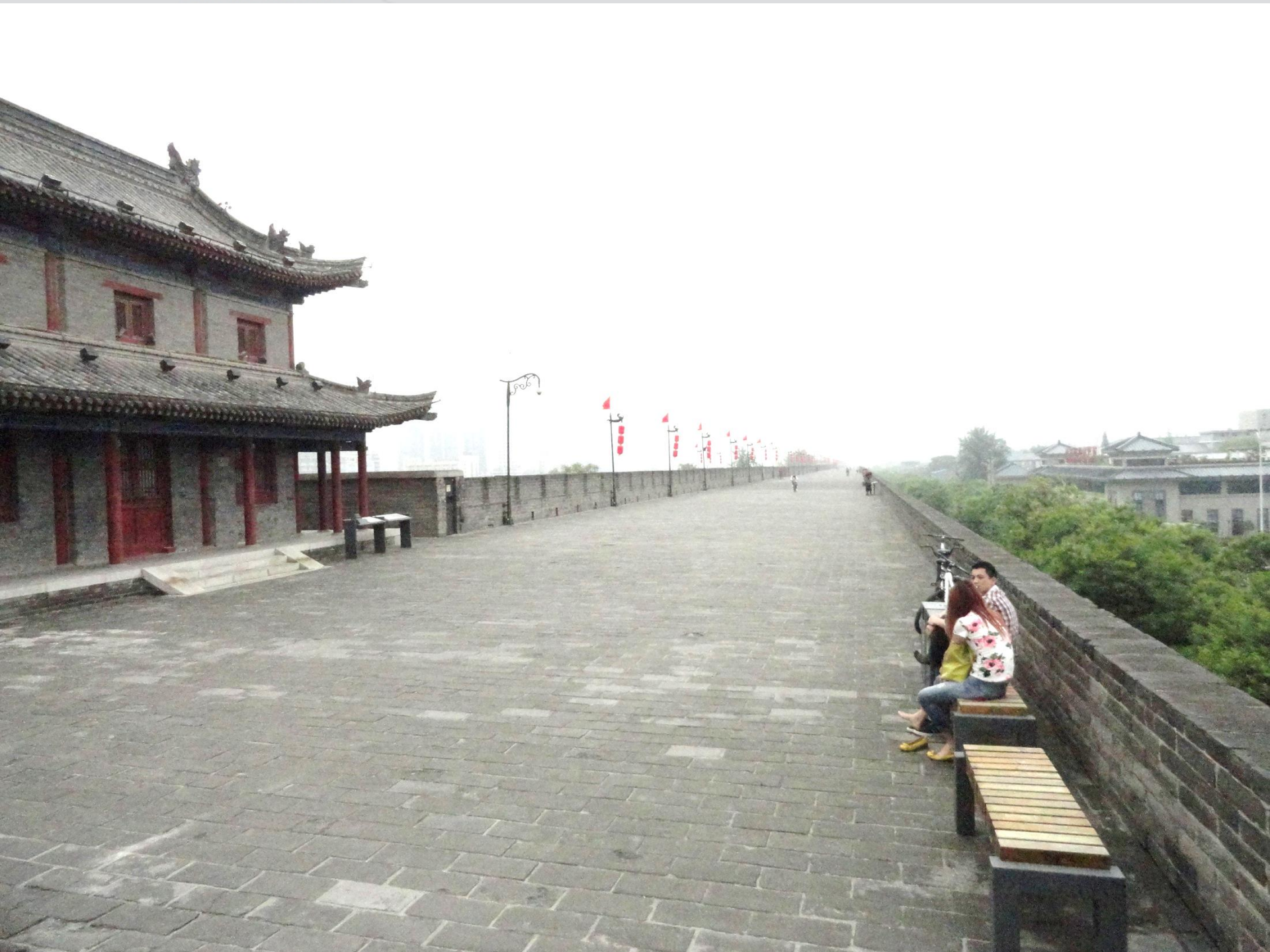
秋分
天气寒冷
降雪

处暑

处暑
天气寒冷
降雪

立秋

立秋
天气寒冷
降雪







虫草全鸭汤

Chinese caterpillar fungus and duck soup

功效：补肺肾之气，平补阴阳、
强壮身体

珍菌煲老鸡汤

Jane bacteria in clay pot old chicken soup



QIA MAO
为人民服务
毛泽东

大海

2015国际空冷凝汽器会议合影留念 International Conference on Air-Cooled Condensers 2015

2015.10.13 XI'AN, CHINA



中国电力工程顾问集团 东北电力设计院有限公司

直接空冷系统在中国的发展历程 Development of direct ACC in China

力设计院有限公司
NEPDI.NET

Andrew Howell

Xian Thermal Power Research
Institute Co., Ltd

Cao Jieyu

议
Users 2015

TPRI

RESEARCH INSTITU
研究院

热烈欢迎参加 2015国际空冷凝汽器会议 代表

主办单位 Organizers:

中国电机工程学会

国际空冷凝汽器学会

承办单位 Host:

西安热工研究院有限公司

协办单位 Co-organizers:

美国电力科学研究院

国际水和水蒸气性质

《联合循环》杂志社

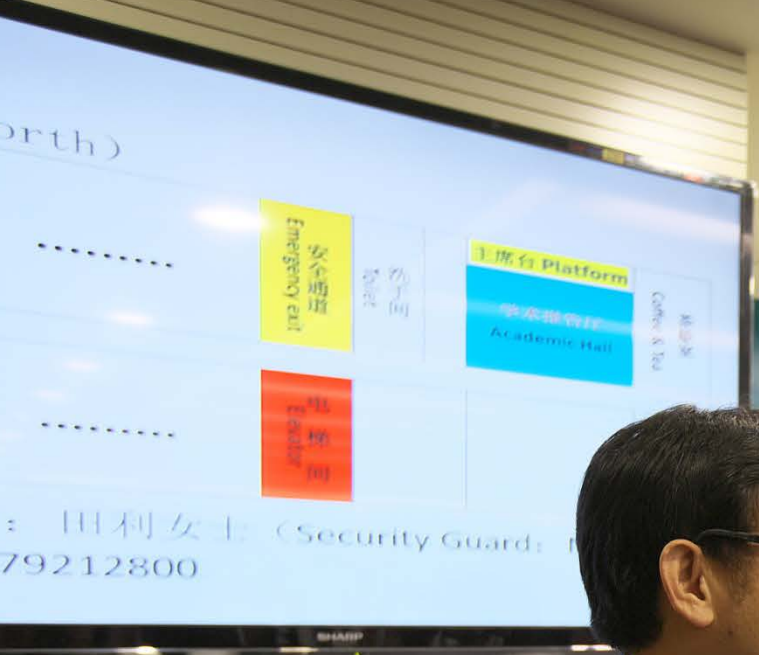
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THERMAL POWER RESEARCH INSTITUTE
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EPRI

ELECTRIC POWER
RESEARCH INSTITUTE

2015 年国际空冷凝汽器会议 (IACOC)

International Conference on Air-Cooled Condensers 2015

中国·西安
XI'AN, CHINA

2015.10.13-15

会议指南 (待定稿)
CONFERENCE GUIDE (PLAN)



开幕式 Welcome		Session Chairman: Wang <u>Deliang</u> , TPRI
9:00	TPRI 领导致辞 Leader's Speech (TPRI)	林伟杰, TPRI Lin Weijie, TPRI
9:15	CESS 领导致辞 Leader's Speech (CESS)	钟鲁文, 中国电机工程学会 Zhong Luwen, CESS
9:25	ACCUG 领导致辞 Leader's Speech (ACCUG)	Andy Howell, Xcel Energy
9:35	茶歇及会议合影 Break and Group Photo	
主旨报告 Keynote Report		Session Chairman: Cao <u>Jieyu</u> , TPRI Andy Howell, Xcel Energy
10:00	直接空冷系统在中国的发展历程 Development of Direct Air-Cooled System in China	惠超, 中国电力工程顾问集团 Hui Chao, CPECC
10:30	空冷电厂现状及发展 ACC Industry Status and Developments	Andy Howell, Xcel Energy
11:00	TPRI 在空冷技术领域的探索及实践 Explore and Practice by TPRI in Air-Cooled Technology	汪德良, TPRI Wang Deliang, TPRI
11:30	空冷凝汽器的腐蚀, 化学及流动加速腐蚀 ACC Corrosion, Chemistry and FAC	Barry Dooley, EPRI
	午餐及展览	

专题一：空冷电厂凝结水精处理技术

Session 1: Condensate Polishing in Air-cooled Units

Session Chairman:

Yang Baohong, TPRI

Andy Howell, Xcel Energy

10月13日 星期二 TUESDAY OCTOBER 13	议程 TOPIC	报告人 PRESENTER
13:30	高速混床树脂分离与输送过程的智能监控技术及在空冷机组中的应用 Intelligent Monitoring of Resins Separation and Transportation for Mixed Bed Polisher	田文华, 西安热工研究院 Tian Wenhua, TPRI
13:50	用于空冷超超临界电厂中凝结水经处理系统的离子交换树脂 Ion Exchange Resins for Condensate Polishing in Air-cooled Ultra Super Critical Thermal Power Plants	Izuru Tokumaru, Mitsubishi Chemical
14:10	定洲电厂精处理运行优化与提质增效效果分析 Operation Optimization of Condensate Polisher and Effect Analysis on Improving Quality and Efficiency in Dingzhou Power Plant	张广文, 国华电力研究院 Zhang Guangwen, Guohua Electric Power Research Institute
14:30	粉末树脂覆盖过滤器运行评估技术及应用案例 Operational Estimation and Application Case of Powdex Pre-coat Filter	雷俊茹, TPRI Lei Junru, TPRI
14:50	休息及茶歇 Break	

专题二：空冷凝汽器的设计优化 Session 2: Design Optimization of Air-cooled Condenser		Session Chairman: Yang Baohong, TPRI Andy Howell, Xcel Energy
15:00	直接空冷系统的实测与设计数据的对比分析 Actual Measurement of Direct Air Cooling System and Comparative Analysis of Design Data	惠超, 中国电力工程顾问集团 Hui Chao, CPECC
15:20	以最小成本提升空冷凝汽器的性能 Improved ACC Performance with Minimal Price Impact	Hubertus Cornelis Maria, Acc-Team Technology BV
15:40	间接空冷系统防冻措施新探讨 New Exploration on Anti-freezing Measure of Indirect Air Cooling System	张莱新, 北京龙源 Zhang Laixin, Beijing Longyuan
16:00	空冷凝汽器挡风墙内步道的数值研究 Optimization of the Internal Walkway in the Air-Cooled Steam Condenser	杨翼, 西安交通大学 Yang Yi, XJTU
16:20	休息及茶歇 Break	

TUESDAY OCTOBER 13	TOPIC	PRESENTER
专题三：空冷凝汽器的运行优化 Session 3: Operation Optimization of Air-cooled Condenser		Session Chairman: Chen <u>Shengli</u> , TPRI
16:30	干式冷却技术在中国 AP1000 核电常规岛的应用研究 Research on Applying Dry Cooling Technology in Conventional Island of AP1000 Nuclear Power in China	柴靖宇, 电力规划设计总院 Cai Jingyu, Electric Power Planning&Engineering Institute
16:50	细究凝汽器空侧的性能 A Closer Look to Air Side Condenser Performance	Ewald Stegeman, Howden Hua
17:10	直接空冷系统运行优化试验研究 Experimental Investigation of Performance Optimization of Direct Air-Cooled System	荆涛, TPRI Jing Tao, TPRI

专题四：腐蚀防护

Session 4: Corrosion Protection

Session Chairman:
Chen Shengli, TPRI

8:30

国际水蒸气性质协会在空冷凝汽器领域的工作
IAPWS Guidance and Applications for ACC

Barry Dooley, EPRI

8:50

空冷凝汽器流动加速腐蚀影响因素的研究
Research of Flow Accelerated Corrosion Influencing
Factors on air Cooling Condenser

孟龙, TPRI
Meng Long, TPRI

9:10

胺化学
Amine Chemistry

Michael Caravaggio, EPRI

9:30

Medupi6 号机组空冷凝汽器的热清洗
Medupi Unit 6 ACC Hot Cleaning

Johannes Pretorius,
Eskom

9:50

赛默飞色谱光谱技术在电厂化学分析中的应用
The New Technique and Applications by
Chromatography and Spectrum of ThermoFisher

刘肖, 赛默飞世尔
Liu Xiao, ThermoFisher

10:10

用于直接空冷凝汽器的铝包钢
Aluminum Clad Steel for Power Plants' Direct Air
Cooled Condensers (DACC)

Hans-Juergen Gauger,
Wickeder Westfalenstahl

10:30

休息及茶歇 Break

专题五：空冷凝汽器的技术改造及新技术

Session 5: New Technology in Air-cooled Condenser

Session Chairman:

Chen Shengli, TPRI

10:40	应用于直接空冷系统的板式蒸发式凝汽器 Plate Evaporative Condenser in Direct Air-cooled Unit	吕凯, TPRI Lv Kai, TPRI
11:00	Guidelines for Internal Inspection of ACCs	Andy Howell, Xcel Energy
11:20	莲花凝汽器及赫兹干式冷却系统 Lotus Condenser and Hertz Dry Cooling System	杨护洲, 西北电力设计院 Yang Huzhou, NWEPI
11:40	会议报告总结 Presentation Summary	汪德良, TPRI Wang Deliang, TPRI



<http://acc-usersgroup.org/>

ACC.01: Guidelines for Internal Inspection of Air-Cooled Condensers

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Tongchuan Direct-Cooled Power Plant



华能铜川电厂一期 2x600MW 机组工程

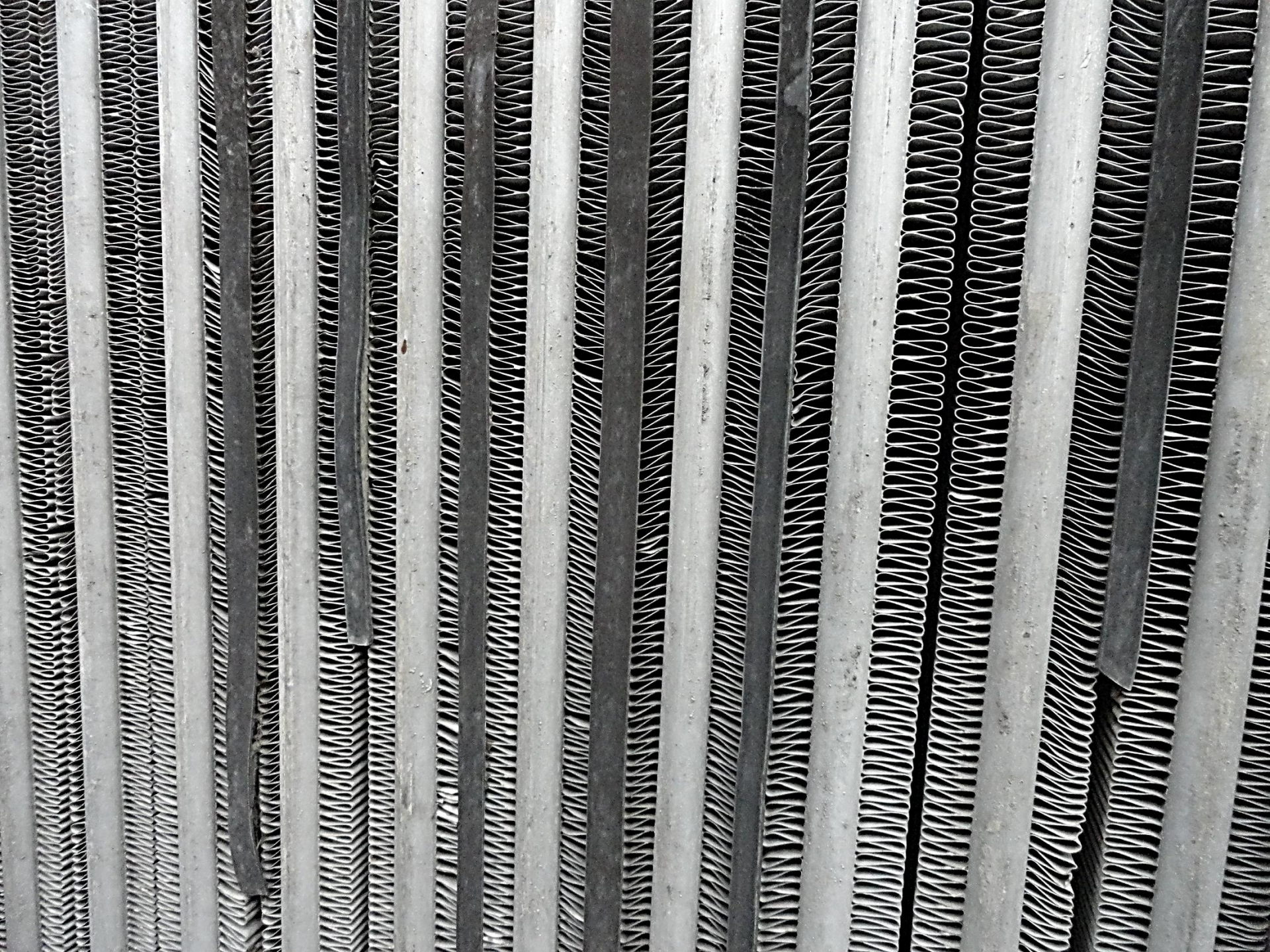
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二〇〇六年一月九日



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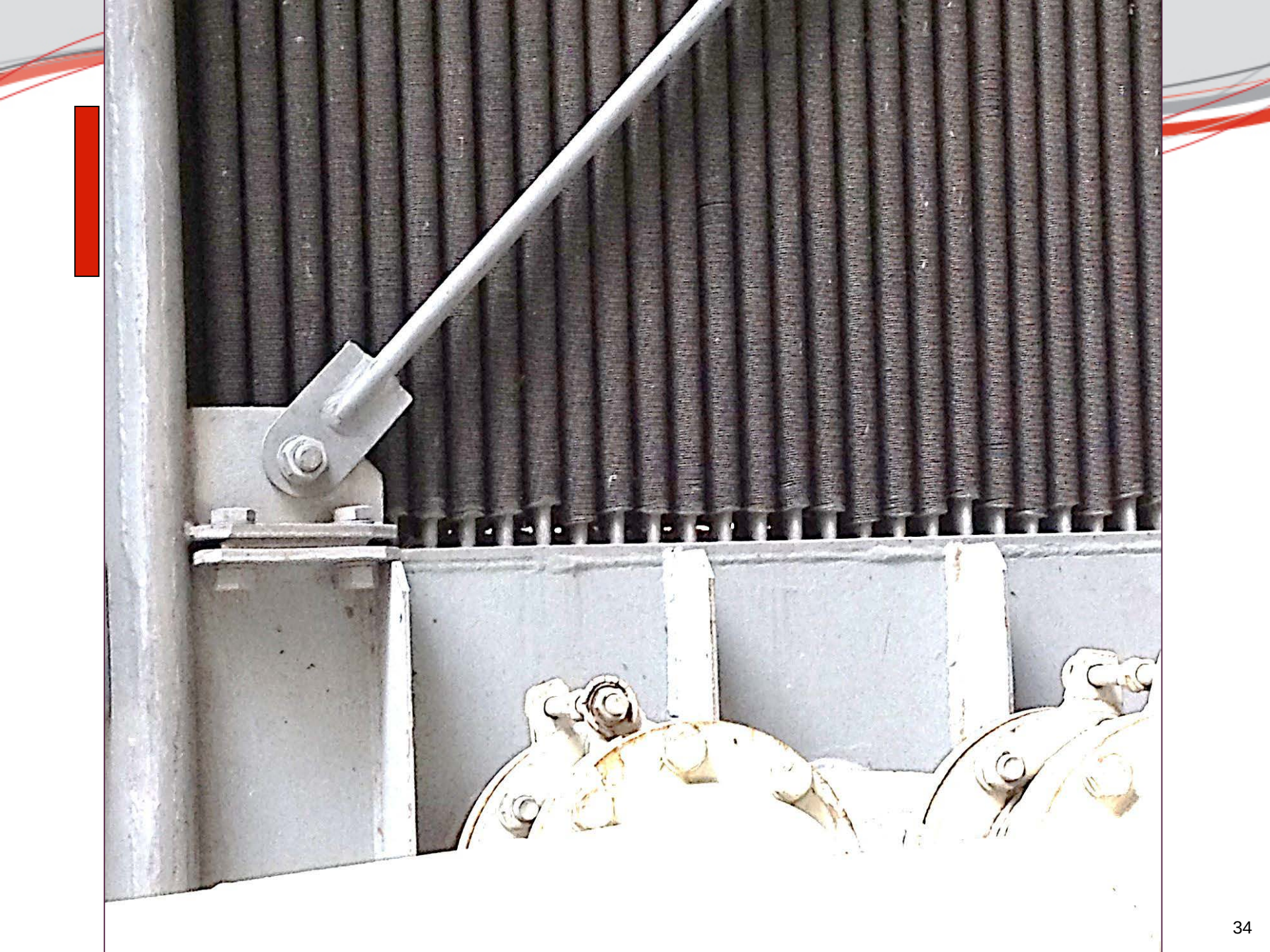
Qinling Indirect-Cooled Power Plant

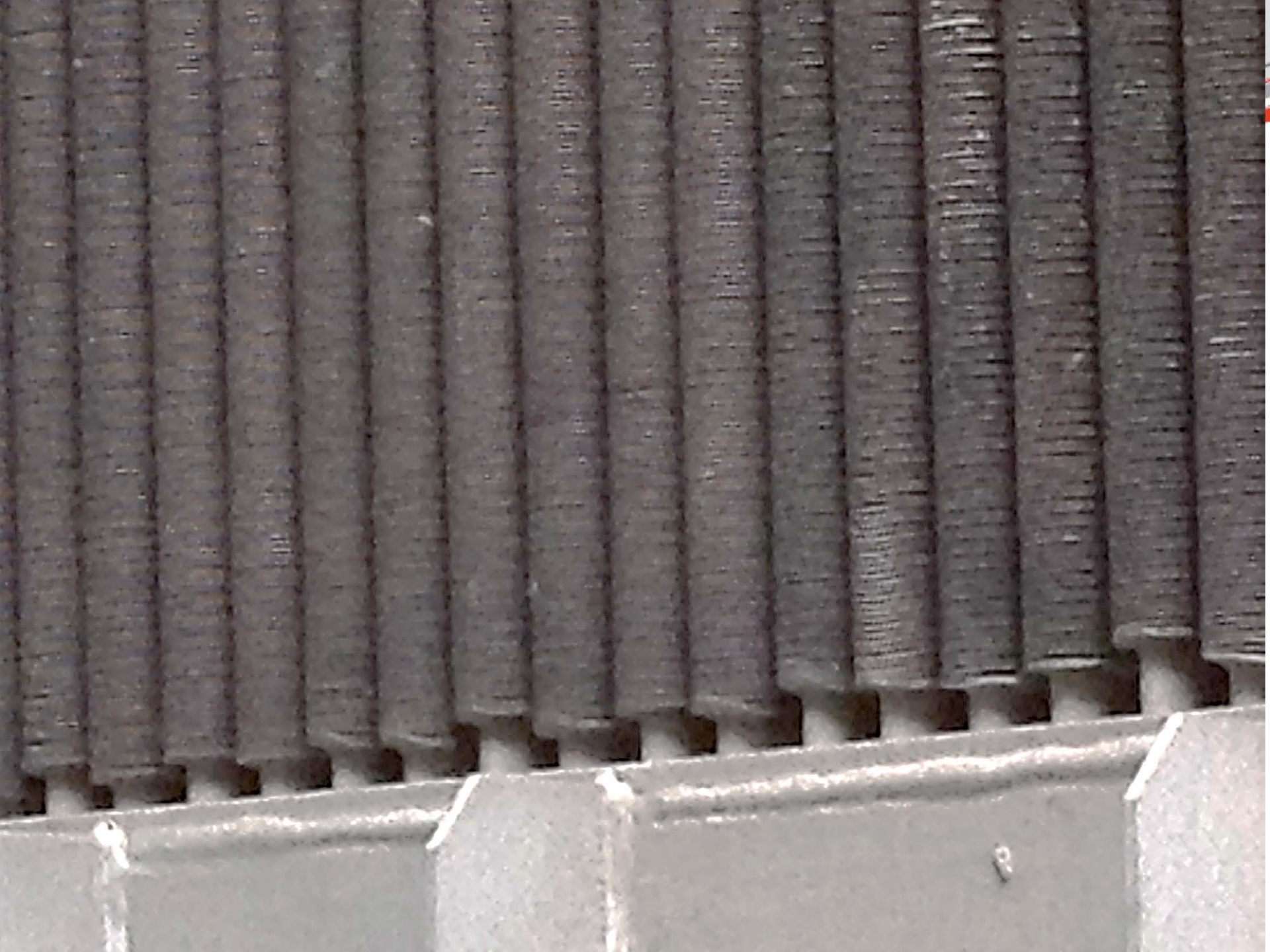


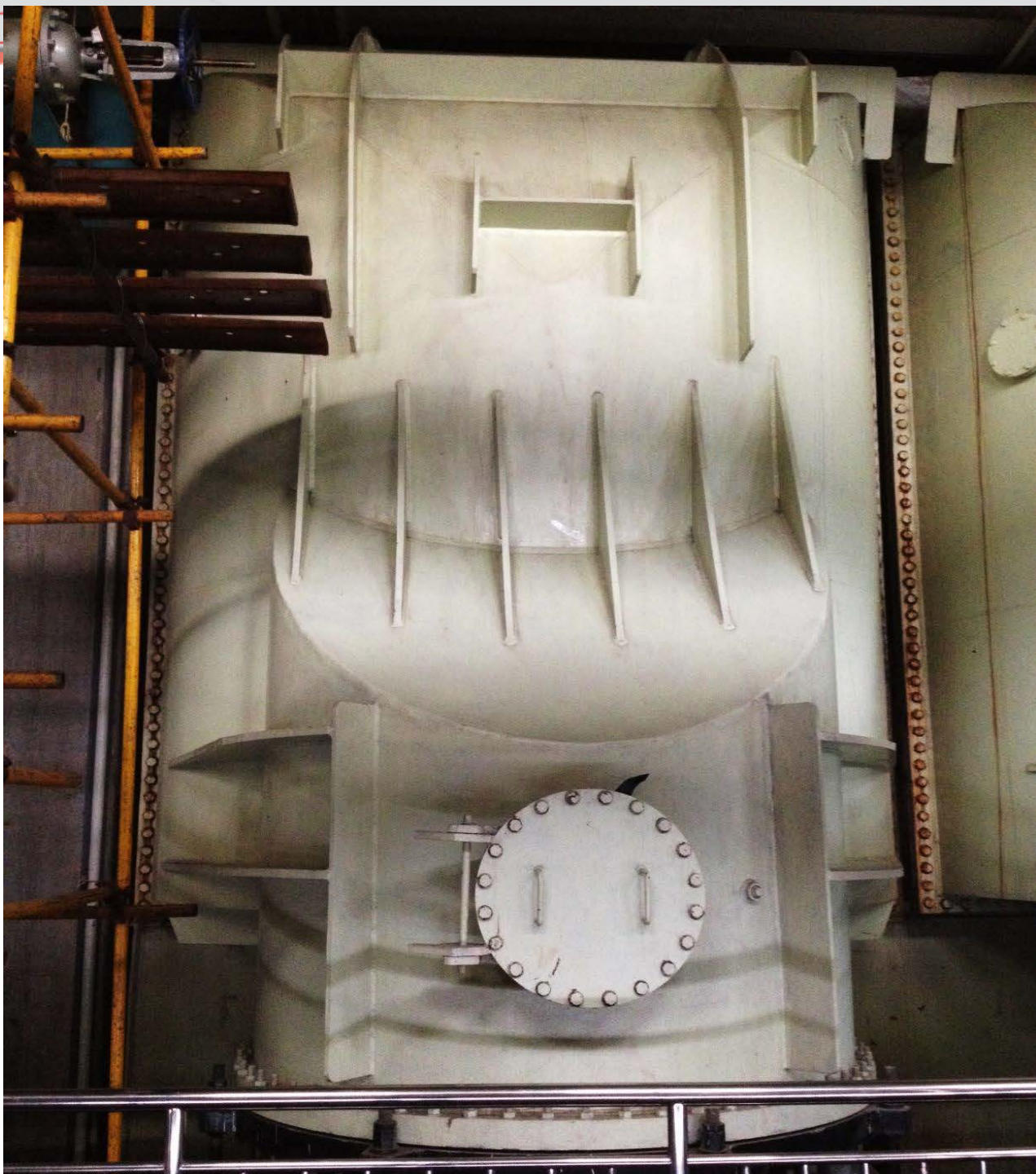














Summary

Nice collaboration effort with Chinese technical personnel involved in air cooling.

Successful technical exchange with moderate interpretation competency.

Contacts for ongoing interaction.



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Questions?