CORINTH PIPEWORKS
PIPE INDUSTRY S.A.

- **PRODUCTION PLAN;**

Attached you may find the production schedule, execution plan and logistics plan of the subject project. We therein demonstrate the approach for performance of the activities, the specific tasks and steps in their sequence, coordination and mutual interdependences. The synergy between the terms for production and the terms for delivery is also addressed. Our logistics plan and production schedule analyze the interconnections between the production and logistics practices.

Please note that our proposed approach ensures qualitative and timely completion of the final product and we can highlight the the following main arguments:

- Our facilities by far exceed in capacity the needs of the project. In this sense there will be spare capacity to absorb any fluctuations along the execution of the project and ensure timely completion.
- Our facilities at Thisvi involve state of the art equipment that whereas it is not old for the industry standards it has already been verified for years on very demanding projects. Attached you may refer to the certification of our facilities per API and other international standards.
- Our facilities and quality system are robust and certified according to the strictest international standards and qualified for several well-esteemed customer specifications. Our laboratory at Thisvi-Greece is an accredited facility, capable even of offering –upon request- third party services. Attached you may refer to the certification of our laboratory.
- Our project management and functional teams have a successful track record on major projects, meaning the necessary experience to manage the project.
- We have successfully accomplished major international logistics operations. Attached you may refer to a presentation of a few selected major projects we have managed over the recent years.

We are presenting in the following sections:

- Production schedule
- Execution plan
- Logistics plan
- CPW certification
- CPW's laboratory certification
- Brief Presentation of Major projects

CORINTH PIPEWORKS S.A.

HEAD OFFICES:
CORPORATE HEADQUARTERS:
General Commercial Registry No: 001978201000
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CORINTH PIPEWORKS
PIPE INDUSTRY S.A.

PRODUCTION SCHEDULE

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VAT Number: EL 09[illegible]
Tax Office: FAE Athens

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CPW ***DELIVERY SCHEDULE*** ***FROM THE COMMENCEMENT DATE***

OVERALL DELIVERY PERIOD ***10 FULL MONTHS FROM THE COMMENCEMENT DATE***

NO. PERIODS	DELIVERY PERIOD	QUANTITY % OF METERS LENGTHS	COMMENTS
1st	Up to the 4th full month	25%	Includes 50% of the pipes for cold bends (SAWL)
2nd	Up to the 6th full month	25%	Includes 50% of the pipes for cold bends (SAWL)
3rd	Up to the 8th full month	25%	
4th	Up to th 10th full month	25%	Includes the emergency stock

Note: The calendar month of the Commencement Date is not included in the calculation of the Delivery Period

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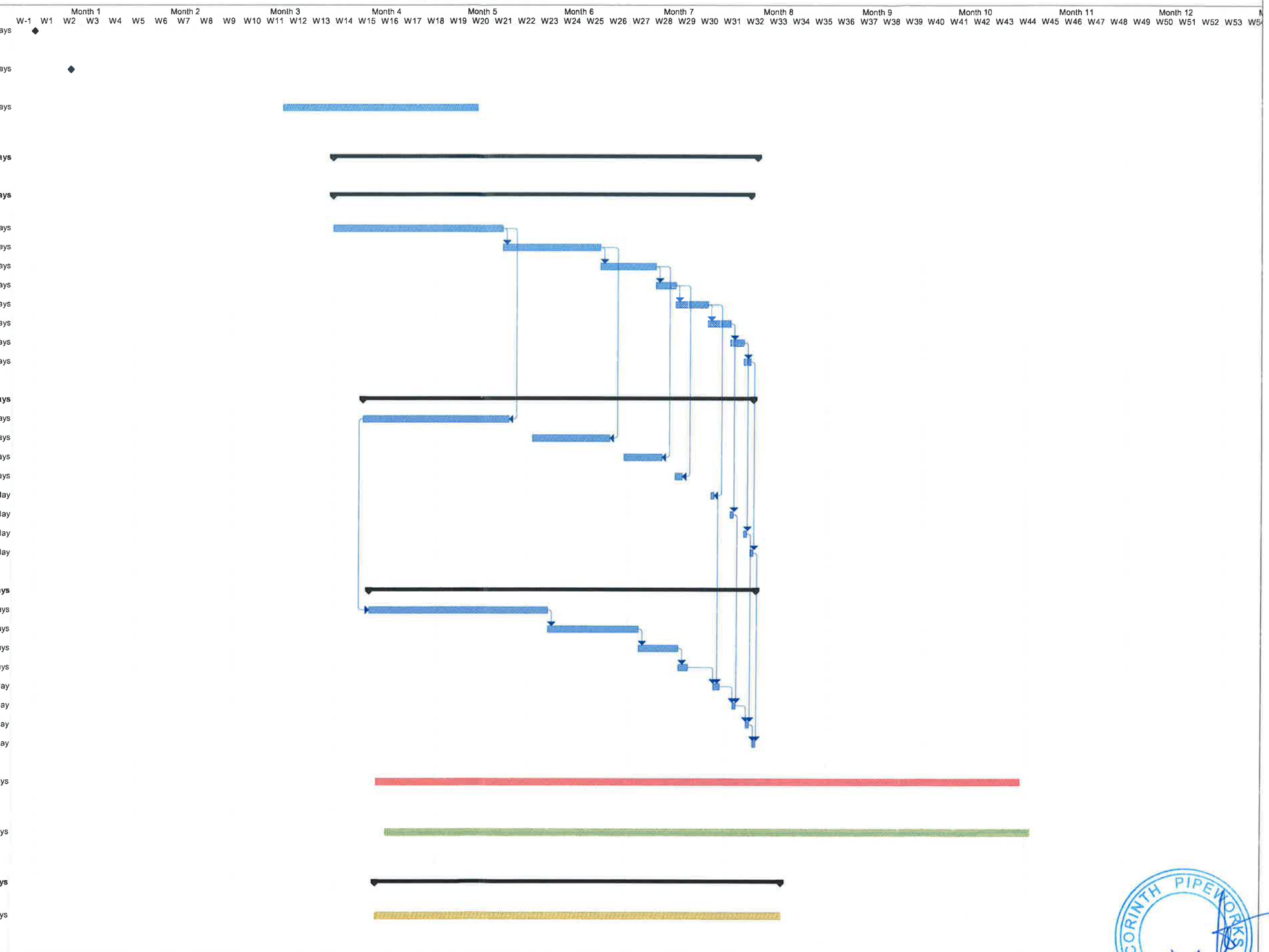
ВРЕМЕННО ПРОГРАМА ЗА ПРОИЗВОДСТВО И ДОСТАВКА

PROVISIONAL PRODUCTION AND DELIVERY SCHEDULE

ID	Task Name	Duration
1	**ПРИЕМАНЕ НА ПОРЪЧКИ - PO PLACEMENT**	0 days
2		
3	**ПОРЪЧВАНЕ НА СТОМАНА - STEEL ORDERING**	0 days
4		
5	**РАЗТОВАРВАНЕ НА ПРИСТИГНАЛА СТОМАНА - STEEL ARRIVAL UNLOADING**	60 days
6		
7	**TOTAL PRODUCTION PERIOD**	**130,38 days**
8		
9	**ПРОИЗВОДСТВО НА НЕПОКРИТИ ТРЪБИ - BARE PIPE PRODUCTION**	**109,5 days**
10	32"x11,00mm-L450ME-91.300m-PE/E-SAWH	44,3 days
11	32"x14,20mm-L450ME-43.687m-PE/E-SAWH	25,8 days
12	32"x16,00mm-L450ME-20.476m-PE/E-SAWH	14 days
13	32"x20,00mm-L450ME-5.295m-PE/E-SAWH	5,7 days
14	32"x11,00mm-L450ME-13.345m-PE/E-LSAW	8,4 days
15	32"x14,20mm-L450ME-8.935m-PE/E-LSAW	5,9 days
16	32"x16,00mm-L450ME-3.593m-PE/E-LSAW	3,4 days
17	32"x20,00mm-L450ME-1.017m-PE/E-LSAW	2 days
18		
19	**ВЪНШНО ПОКРИТИЕ - EXTERNAL COATING**	**102,68 days**
20	32"x11,00mm-L450ME-91.300m-PE/E-SAWH	38,6 days
21	32"x14,20mm-L450ME-43.687m-PE/E-SAWH	19,4 days
22	32"x16,00mm-L450ME-20.476m-PE/E-SAWH	9,3 days
23	32"x20,00mm-L450ME-5.295m-PE/E-SAWH	2,5 days
24	32"x11,00mm-L450ME-13.345m-PE/E-LSAW	1 day
25	32"x14,20mm-L450ME-8.935m-PE/E-LSAW	1 day
26	32"x16,00mm-L450ME-3.593m-PE/E-LSAW	1 day
27	32"x20,00mm-L450ME-1.017m-PE/E-LSAW	1 day
28		
29	**ВЪТРЕШНО ПОКРИТИЕ -INTERNAL COATING**	**101,68 days**
30	32"x11,00mm-L450ME-91.300m-PE/E-SAWH	46,8 days
31	32"x14,20mm-L450ME-43.687m-PE/E-SAWH	23,5 days
32	32"x16,00mm-L450ME-20.476m-PE/E-SAWH	10,8 days
33	32"x20,00mm-L450ME-5.295m-PE/E-SAWH	2,8 days
34	32"x11,00mm-L450ME-13.345m-PE/E-LSAW	1 day
35	32"x14,20mm-L450ME-8.935m-PE/E-LSAW	1 day
36	32"x16,00mm-L450ME-3.593m-PE/E-LSAW	1 day
37	32"x20,00mm-L450ME-1.017m-PE/E-LSAW	1 day
38		
39	**ТРАНСПОРТИРАНЕ С ЖЕЛЕЗОПЪТЕН ТРАНСПОРТ - TRANSPORTATION BY RAIL**	198 days
40		
41	**ТРАНСПОРТИРАНЕ С КАМИОН - TRANSPORTATION BY TRUCK**	198 days
42		
43	**АЛТЕРНАТИВ: ДОСТАВКА НА БЪРЗОТО ПЪТ ALTERNATIVE: FAST TRACK DELIVERY**	**125 days**
44	ТРАНСПОРТИРАНЕ С КОРАБ/ЖЕЛЕЗОПЪТЕН ТРАНСПОРТ/КАМИОН - TRANSPORTATION BY VESSEL/RAIL/TRUCK	125 days



Project: IGB
Date: Wed 27/6/18

Task		Summary		External Milestone		Inactive Milestone		Duration-only		Start-only		External Milestone	
Split		Project Summary		Inactive Task		Inactive Summary		Manual Summary Rollup		Finish-only		Progress	
Milestone		External Tasks		Inactive Milestone		Manual Task		Manual Summary		External Tasks		Deadline	

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CORINTH PIPEWORKS
PIPE INDUSTRY S.A.

EXECUTION PLAN

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General Commercial Registry No: 003978101000
VAT Number: EL 099362375
Tax Office: FAE Athens

TITLE	**PROJECT EXECUTION PLAN**		
PROCEDURE No	**CPW-PEP-002-2018**		
REVISION No	**0**		
RECIPIENTS	PLANT DIRECTOR		
	DEPUTY PLANT DIRECTOR		
	COMMERCIAL DIRECTOR		
	QUALITY DIRECTOR		
	ADMINISTRATIVE DIRECTOR		
	ISSUED	**REVIEWED**	**APPROVED**
NAME	**KOSTAS KARAKASSIS** PROJECT MANAGER	**ELIAS MITROPOULOS** PROJECT MANAGEMENT SENIOR MANAGER	**ELIAS MITROPOULOS** PROJECT MANAGEMENT SENIOR MANAGER
SIGNATURE			

CORINTH PIPEWORKS S.A.

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1. Project Definition and main objectives

1.1 Definitions and Abbreviations

- *"Contract"* or *"project contract"* or *"purchase order"*: Contract for the supply of the project's linepipe
- *"ICGB"* or *"Company"* or *"Client"* or *"Customer"*: The purchaser of the pipes
- *"Supplier"*: The supplier of the pipes e.g. Corinth Pipeworks S.A.
- *"CPW"*: Corinth Pipeworks S.A.
- *"WBS"*: Work Breakdown Structure

1.2 Scope of the project

The scope of the project and main objective is the final delivery of all the pipe items, coated as per the project specifications, in good quality and on time. The critical stages of the project are recognised as follows:

1. Establishment of effective communication lines between Supplier's Project Team and the Company's Team
2. Award of sub-supplies
3. Production
4. Logistics Operations/Delivery at the contractual delivery locations

Main objectives

1. Safety first – No incidents, full compliance and focus on the HSE requirements
2. On time delivery of quality products, to Company's full satisfaction
3. Cost control to remain within the budget

The supply of linepipe and casing pipe, is in accordance with the contract documents. The scope of supply is as : Bill of quantities line pipe DN 800 Project IGB-Appendix01 to the technical specification- EN ISO 3183 PSL 2

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Bulgaria

ITEM	Item No.	Qty (m)	O.D. (inch)	W. T. (mm)	Material Grade	Weight (kg/m)	Weight (M.T.)	External/ Internal Coating
1	SAWH	73.762,00	32	11,00	L450ME	217,50	16.043,2	PE/E
2	SAWL	7.259,00	32	11,00	L450ME	217,50	1.578,8	PE/E
3	SAWH	38.257,00	32	14,20	L450ME	279,65	10.698,6	PE/E
4	SAWL	6.309	32	14,20	L450ME	279,65	1.764	PE/E
5	SAWH	20.341	32	16,00	L450ME	314,39	6.395	PE/E
6	SAWL	3.593	32	16,00	L450ME	314,39	1.130	PE/E
7	SAWL	4.726	32	20,00	L450ME	391,01	1.848	PE/E
8	SAWL	572	32	20,00	L450ME	391,01	224	PE/E
9	SAWH	156	32	11,00	L450ME	217,50	34	PE/E
10	SAWH	84	32	14,20	L450ME	279,65	23	PE/E
11	SAWH	48	32	16,00	L450ME	314,39	15	PE/E
12	SAWL	12	32	20,00	L450ME	391,01	5	PE/E
		155.119,00					39.758,3	

Greece

Item	Process	Qty (m)	O.D. (inch)	W. T. (mm)	Material Grade	Weight (kg/m)	Weight (M.T.)	External/ Internal Coating
1	SAWH	17.322,00	32	11,00	L450ME	217,50	3.767,5	PE/E
2	SAWL	6.086,00	32	11,00	L450ME	217,50	1.323,7	PE/E
3	SAWH	5.334,00	32	14,20	L450ME	279,65	1.491,7	PE/E
4	SAWL	2.626,00	32	14,20	L450ME	279,65	734	PE/E
5	SAWH	75	32	16,00	L450ME	314,39	24	PE/E
6	SAWL	0,00	32	16,00	L450ME	314,39	0	PE/E
7	SAWL	545	32	20,00	L450ME	391,01	213	PE/E
8	SAWL	445,00	32	20,00	L450ME	391,01	174	PE/E
9	SAWH	60	32	11,00	L450ME	217,50	13	PE/E
10	SAWH	12	32	14,20	L450ME	279,65	3	PE/E
11	SAWH	12	32	16,00	L450ME	314,39	4	PE/E
12	SAWL	12	32	20,00	L450ME	391,01	5	PE/E
		32.529,00					7.752,8	

1.3 Environment of the project

The environment of the project that has potentially an effect on the supply of this project consists of the following parties, other than the two main contractual parties (ICGB and CPW):

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2 Project Organisation

CPW will undertake the main role of managing all associated parties. CPW has traditionally undertaken large international projects with demanding technical requirements, and complicated logistics. It has in place a project management department and each order is handled individually by a specifically formed project team.

For this particular project there will be one Project manager (with a full back-up deputy) assigned to coordinate the project on behalf of CPW.

The project will be overviewed by the CPW's Commercial Director and the Thisvi Plant Director.

- *Ref: Project Organization Chart*

The outline of the project management, during the various stages from the award of Contract to Delivery Acceptance is as follows:

a. the Project Managers are introduced to the project details at the very early stages of the Contract award.
b. Communication lines are established between the Company and CPW.
c. Any pending details for communications and reporting with the Company are clarified through the kick-off and pre-production meeting(s).
d. The Company receives updates –at pre-agreed intervals- on the main WBS activities, the most important being:
    i. Procurement of main raw materials
    ii. Expected production schedule, before production start
    iii. Expected vs actual production, after the beginning of production
    iv. Expected transportation/delivery schedule, before transportation start
    v. Expected vs actual transportation/deliveries, after the beginning of transportation activities
e. Internal follow-up is internally applicable on –mainly-:
    i. The progress of raw materials procurement and close monitoring of deliveries.
    ii. The progress of logistics plans and subsequent monitoring of delivery progress.

2.1 Key Personnel and responsibilities

Please refer to the submitted project organization chart(s) showing the full extent of managers involved in the execution of the Contract.

The managers who are expected to have the highest rate of involvement in the Contract execution and relevant decision making are:

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Name	Title	Main tasks and responsibilities
Overall coordination and communication with the client		
Ilias Bekiros	Commercial director	Project Director. The main decision maker for all commercial issues.
Theodore Apostolopoulos	Regional Sales Director	All commercial issues.
Georgia Ktisti	Tender Manager	All tender handling and commercial issues, revisions etc.
Kostas Karakassis **Kostas Lempessis**	Project manager (CPW Project manager) Project manager (CPW Deputy Project manager)	Full time project managers, for CPW.
Elias Mitropoulos	CPW Senior Manager, Head of project management	Overviewing of project management activities
Technical, Production and HSE		
Vassilios Gotsis	Thisvi Plant director	The main decision maker for all factory issues. Project Director for all factory related issues.
Dr. Athanassios Tazedakis	Chief Technology Officer	The main decision maker for engineering and technological issues.
Dr. T. Dourdounis	Technical Projects Manager	Full time expertise and support on technical and specification issues.
Dr. Nikolaos Voudouris	Quality Director	The main decision maker for quality issues.
Panagiotis Karabogias	HSE Manager	All HSE issues.
George Karalas	HSAW & SAWL mills – Operations Director	All HSAW/SAWL pipe production issues.
Loukas Tasios	Coating/Lining mills - Operations Director	All Coating/Lining production issues.
Nikolaos Sarsentis	Procurement director	Procurement responsibility for raw materials.

Logistics, Commercial and Financial		
Konstantinos Moschakis	Logistics manager	All logistics operations in cooperation with the CFO.
Ioannis-Dimitrios Papadimitriou	CFO	The main decision maker on financial & logistics related issues.
Maria Christou	Expediting manager	Handling and coordination of all financial, accounting,-payment and invoicing matters, including the relevant documentation issuing during Contract execution.

Note: The above managers will be fully supported from the entire extent of our organization.

3 Procurement/Sub-suppliers

3.1 Sub-Suppliers' Quality Systems and Monitoring (Steel and Coating raw materials)

The main procedures and criteria for the selection of steel and coating raw materials are as follows:

All sub-suppliers are required to maintain a Quality Management System and belong to the CPW approved list.

CPW regularly (e.g. every three years) re-evaluates the quality performance of each approved sub-supplier, as part of the standard quality practices.

CPW has developed and implements, in the frame of the Quality Management System, documented methods to safeguard that all purchasing, inspection and test operations are performed under controlled conditions.

The selection of the sub-suppliers is made on the basis of their ability to assure the strict quality aspects with due regard to quality. Their performance of approved sub-suppliers is periodically evaluated and recorded and the so obtained records constitute the basis for continuation of the Company's cooperation with them.

To qualify for approval and receive orders a sub-supplier must comply with certain basic requirements, which are fundamental to the effective control and assurance of the quality of the ordered items, in conjunction with the environmental and safety principles.

Sub-Suppliers and Subcontractors listed in the approved Lists are periodically evaluated as per CPW's standard quality system to assure that they maintain their approval status.

The introduction of a new Sub-Supplier in CPW's list is made through the following procedure:
An evaluating team consisting of representatives of various functions is formed and responsible for the evaluation of the candidate. The survey is made according to standard checklists, which has been

structured in such a way as to reveal the sub-suppliers ability to meet the Company procurement requirements.

The basic criteria against which the evaluation is made are:

- Technical capabilities and capacity.
- Quality/ Environmental/ H&S System.

Evaluation is carried out using one or more of the following methods:

- Technical evaluation / auditing of sub-suppliers conformance to requirements.
- Production trials and/or samples testing, where applicable.
- Review of Sub-Supplier's Management System for compliance with applicable standard and CPW requirements.

The result of this evaluation can be approval or conditional approval or disapproval.

Whereas the above apply for a wide range of sub-supplies (including materials for Coating and Lining), for steel material in particular, CPW has established separate procedures to address particular issues. Such procurement activities are handled as critical purchases.

Please refer to the submitted project *Project Quality Plan* for further details on the sub-suppliers' selection and evaluation procedure.

- *Ref:* CPW Internal Procedure *Critical Purchase – Steel Procurement* (CPW-B-X-271.0)
- *Ref:* CPW Internal Procedure *Non Critical Purchase* (CPW-B-X-272.0)
- *Ref:* CPW Internal Procedure *Coating Material Selection* (CPW-B-X-273.0)
- *Ref:* IGB Project *Quality Plan*

4 Expediting and inspection

Part of our project team shall be expediting managers, whose main duty among others is to ensure that the commercial documentation (e.g. documents related to invoicing) shall be presented on time and in the correct form. She/he will also handle issues related to financial, taxation and importing/exporting operations, as/if applicable.

Expediting, as far as it concerns the main project activities is performed by the project leaders & managers, with the methods and tools described in other sections of this document (please refer to section 2).

At the delivery points of this contract, there will be a common survey between CPW and other interested parties' representatives for inspection and acceptance of the delivered products.

Any damages spotted during such inspections shall be quarantined and CPW will undertake to have such damages repaired and bring the products back to their "full acceptance" status, or replace them. Methods of repairs to be mutually pre-agreed.

CPW wishes to point out that per our past experience one of the critical points that require attention is how the inspection and repair procedures will effectively result in the required acceptance status of the products without negatively affecting the smooth delivery flow and other parallel operations.

5 Logistics Operations

Multi-modal logistics operations are required to deliver the products to the final destination. CPW owns experience and resources on such operations and have successfully undertaken logistics operations worldwide on a regular basis. There is also extensive past experience in the area of Northern Greece (TAP).
Based on such experience we have in place and already submitted to the Company a detailed project logistics plan that covers all aspects of handling and loading activities.

- *Ref:* Project *Logistics Plan)*

6 Communication among work parties and administration requirements

The intended plan of communication is as follows:

6.1 Meetings

Kick-off meeting and pre-productions meetings to be held.
Interface Meetings and/or Teleconference discussions meetings to be arranged of the nature and frequency as required in the Contract provisions and for the smooth execution of the project.

6.2 Reports

Monthly reports shall be submitted.

6.3 Non-conformities

Our quality system already foresees reporting of non-conformities, in the unlikely case that such handling is required. Please refer to the QA/QC plan of the project.

6.4 Formal correspondence and communication

All official correspondence to be exchanged as per the pre-agreed methods. Daily matters can be still discussed through emails.

6.5 Document Control and management

CPW will submit to the Company a Master Document Register (MDR).

CPW will appoint a document controller to ensure document archiving as per the project requirements.

7 Production & Delivery Schedule

CPW will submit and follow up a detailed production and delivery plan with broken down scope and Gantt charts in respect to the contract requirements. The percentage of completion of each step in the schedule shall be daily monitored based on the daily production results reported by the production

unit(s). In this manner a continuous overview of the actual status versus the original planning is in place and enables early notification and corrective actions in case of deviations that may affect the critical path of the production completion and the delivery time.

The following main resources (e.g. production lines) will be occupied for the execution of this project:

- SAW 100": SAWH Thisvi Production Line up to 100" diameter - Greece
- JCOE 56": SAWL Thisvi Production Line up to 56" diameter - Greece
- TCP 100": Thisvi External Coating Line up to 100" diameter - Greece
- TCP 48": Thisvi External Coating Line up to 48" diameter - Greece
- TLP 56": Thisvi Internal Coating Line up to 56" diameter – Greece
- CPW Storage Yard at Thisvi -400.000 m²

8 Methods for alignment of project goals

Our experience has demonstrated that the following tools can be effectively used to monitor the performance of the project and ensure alignment with the project goals:

Budgeted vs Actual production diagrams

- Budgeted vs Actual production diagrams for pipe making and coating activities
- Budgeted vs Actual diagrams for deliveries on a weekly or bi-weekly basis

Project report(s) with start/end dates and completion percentages

All the activities are monitored on a weekly basis –at least- via the project overall progress report. Such progress report will consist of all the activities of the project, with a suitably broken down Work Breakdown Structure (WBS), including start/end dates and completion percentages. It will be the main tool for monitoring the timely progress of all sub-activities, and tracing/ evaluation of any deviations.

9 HSE requirements

CPW will have in place a project specific plan that addresses all the necessary HSE aspects of the project. HSE project requirements shall be applicable as well for all Suppliers of raw materials.

10 Quality assurance – Quality Control

CPW will have in place a project specific *Quality Plan,* for Company's approval that addresses all the necessary quality aspects of the project.

11 Risk Management

According to the ISO guidelines and API Q1 quality management system requirements, our organization maintains documented procedures to identify and control risk associated with impact on delivery and quality of product.

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CPW will have in place a Risk Management procedure in accordance with the requirements of the project.

Within the fields of risk assessment it is a major advantage that CPW does not use subcontractors in any production activity (pipe production SAWL/SAWH, Coating, Lining), therefore minimize any major risks of the project and at the same time facilitates the effective coordination between the Contracting Entity and the EPC.

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CORINTH PIPEWORKS
PIPE INDUSTRY S.A.

CPW CERTIFICATION

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Tel: +30 210 6787 111, fax: +30 210 6787 520 / email: info@cpw.gr

General Commercial Registry No: 003978301000
VAT Number: EL 099362375
Tax Office: FAE Athens

Certificate of Authority to use the Official API Monogram

License Number: 5L-0396 **ORIGINAL**

The American Petroleum Institute hereby grants to

CORINTH PIPEWORKS S.A.
VI. PE. Thisvis
Domvrena, Viotia
Greece

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and **API-5L** and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with this certificate number: **5L-0396**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Manufacturer of Line Pipe Plain End at PSL 1, Manufacturer of Line Pipe Plain End at PSL 2 - Service Annex H - Type of Pipe: HFW / Delivery Condition: M / Max. Grade: X70, - Type of Pipe: SAWH / Delivery Condition: M / Max. Grade: X70, - Type of Pipe: SAWL / Delivery Condition: M / Max. Grade: X70; Manufacturer of Line Pipe Plain End at PSL 2 - Type of Pipe: HFW / Delivery Condition: M / Max. Grade: X80, - Type of Pipe: SAWH / Delivery Condition: M / Max. Grade: X80, - Type of Pipe: SAWL / Delivery Condition: M / Max. Grade: X80; Manufacturer of Line Pipe Plain End at PSL 2 - Service Annex J - Type of Pipe: HFW / Delivery Condition: M / Max. Grade: X80, - Type of Pipe: SAWH / Delivery Condition: M / Max. Grade: X80, - Type of Pipe: SAWL / Delivery Condition: M / Max. Grade: X70

QMS Exclusions: Design and Development, Servicing

Effective Date: January 12, 2018
Expiration Date: January 12, 2021

To verify the authenticity of this license, go to www.api.org/compositelist.

Lisa Salley
Vice President, API Global Industry Services

American Petroleum Institute

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2015-313

energy API

REGISTRATION NO. Q1-0115

Certificate of Registration

The American Petroleum Institute certifies that the quality management system of

CORINTH PIPEWORKS S.A.
VI. PE. Thisvis
Domvrena, Viotia
Greece

has been assessed by the American Petroleum Institute and found to be in conformance with the following:

API Specification Q1

The scope of this registration and the approved quality management system applies to the:

Manufacture and Coating of Line Pipe, Casing, Tubing and Rolled Hollow Sections

API approves the organization's justification for excluding:
Design and Development; Servicing

API Spec Q1 Registered

Effective Date:	**JANUARY 12, 2018**
Expiration Date:	**JANUARY 12, 2021**
Registered Since:	**MARCH 31, 2003**

Lisa Salley, Vice President, API Global Industry Services

This certificate is valid for the period specified herein. The registered organization must continually meet all requirements of API Spec Q1, *Specification for Quality Programs for the Petroleum, Petrochemical and Natural Gas Industry*, and the requirements of the Registration Agreement. Registration is maintained and regularly monitored through annual full system audits. This certificate has been issued from API offices located at 1220 L Street, N.W., Washington, D.C. 20005-4070, U.S.A. It is the property of API, and must be returned upon request. **To verify the authenticity of this certificate, go to www.api.org/compositelist.**

2016-270 | 11.16 | 2M | Printed in the USA |

CORINTH PIPEWORKS S.A.

QMS REGISTERED

Appendix to Certificate

This Appendix refers to APIQR Registration No. **Q1-0115**

Corinth Pipeworks S.A.

Additional Locations included in this Certification are listed below.

Location	Activities
33, Amarousiou-Halandriou Str. 151 25 Maroussi, Attiki Greece	Legal and Finance, Steel Procurement, Tendering, Central HR

American Petroleum Institute Quality Registrar
1220 L Street, NW
Washington, DC 20005-4070
USA
www.api.org

QUALITY REGISTRAR

CORINTH PIPEWORKS S.A.

QMS REGISTERED

Certificate of Registration

APIQR® REGISTRATION NUMBER
0194

This certifies that the quality management system of

CORINTH PIPEWORKS S.A.
VI. PE. Thisvis
Domvrena, Viotia
Greece

has been assessed by the American Petroleum Institute Quality Registrar (APIQR®) and found it to be in conformance with the following standard:

ISO 9001:2015

The scope of this registration and the approved quality management system applies to the

Manufacture and Coating of Line Pipe, Casing Tubing and Rolled Hollow Sections

APIQR® approves the organization's justification for excluding:

8.3 Design and Development of Products and Services

Effective Date:	**SEPTEMBER 21, 2017**
Expiration Date:	**JANUARY 12, 2021**
Registered Since:	**JULY 17, 2000**

Lisa Salley, Vice President,
API Global Industry Services

Accredited by Member of the International Accreditation Forum Multilateral Recognition Arrangement for Quality Management Systems

ANAB ACCREDITED MANAGEMENT SYSTEMS CERTIFICATION BODY

IAF

This certificate is valid for the period specified herein. The registered organization must continually meet all requirements of APIQR's Registration Program and the requirements of the Registration Agreement. Registration is maintained and regularly monitored through annual full system audits. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001 standard requirements may be obtained by consulting the registered organization. This certificate has been issued from APIQR offices located at 1220 L Street, N.W., Washington, D.C. 20005-4070, U.S.A., it is the property of APIQR, and must be returned upon request. **To verify the authenticity of this certificate, go to www.api.org/compositelist.**

QUALITY REGISTRAR

2016-271 | 11.16 | 2M

QMS REGISTERED

Appendix to Certificate

This Appendix refers to APIQR Registration No. **ISO-0194**

Corinth Pipeworks S.A.

Additional Locations included in this Certification are listed below.

Location	Activities
33, Amarousiou-Halandriou Str. 151 25 Maroussi, Attiki Greece	Legal and Finance, Steel Procurement, Tendering, Central HR

American Petroleum Institute Quality Registrar
1220 L Street, NW
Washington, DC 20005-4070
USA
www.api.org

QUALITY REGISTRAR

CORINTH PIPEWORKS S.A.

CORINTH PIPEWORKS
PIPE INDUSTRY S.A.

CPW'S LABORATORY CERTIFICATION

HEAD OFFICES: 2-4 Mesogeion Av., 115 27 Athens, Greece
CORPORATE HEADQUARTERS: 33, Amarousiou-Halandriou Str., GR-15125, Marousi, Athens, Greece
Tel: +30 210 6787 111, fax: +30 210 6787 520 / email: info@cpw.gr

General Commercial Registry No: 003978301000
VAT Number: EL 099362325
Tax Office: FAE Athens

Hellenic Accreditation System

ΕΣΥΔ

ACCREDITATION CERTIFICATE

No. 113-3

The Hellenic Accreditation System (ESYD), as the national accreditation body of Greece in accordance with the Laws 3066/2002 and 4109/2013,

ACCREDITS

the

Quality Control Laboratory

of

Corinth Pipeworks S.A.

in Thisvi Plant, Viotia, Greece

under the terms of the ELOT EN ISO/IEC 17025: 2005 Standard and the ESYD Criteria, to carry out tests, as specified in the attached Scope of the Accreditation, which may be revised by decisions of ESYD.

The initial accreditation was issued on 10.1.2003. This Certificate renews the accreditation and it is valid until January 9th, 2019, provided that the accredited body will comply with the above Standard and the ESYD Criteria.

Athens, March 5th, 2015

Ioannis Sitaras
Director of the Laboratories Accreditation Division

CORINTH PIPEWORKS

CORINTH PIPEWORKS
PIPE INDUSTRY S.A

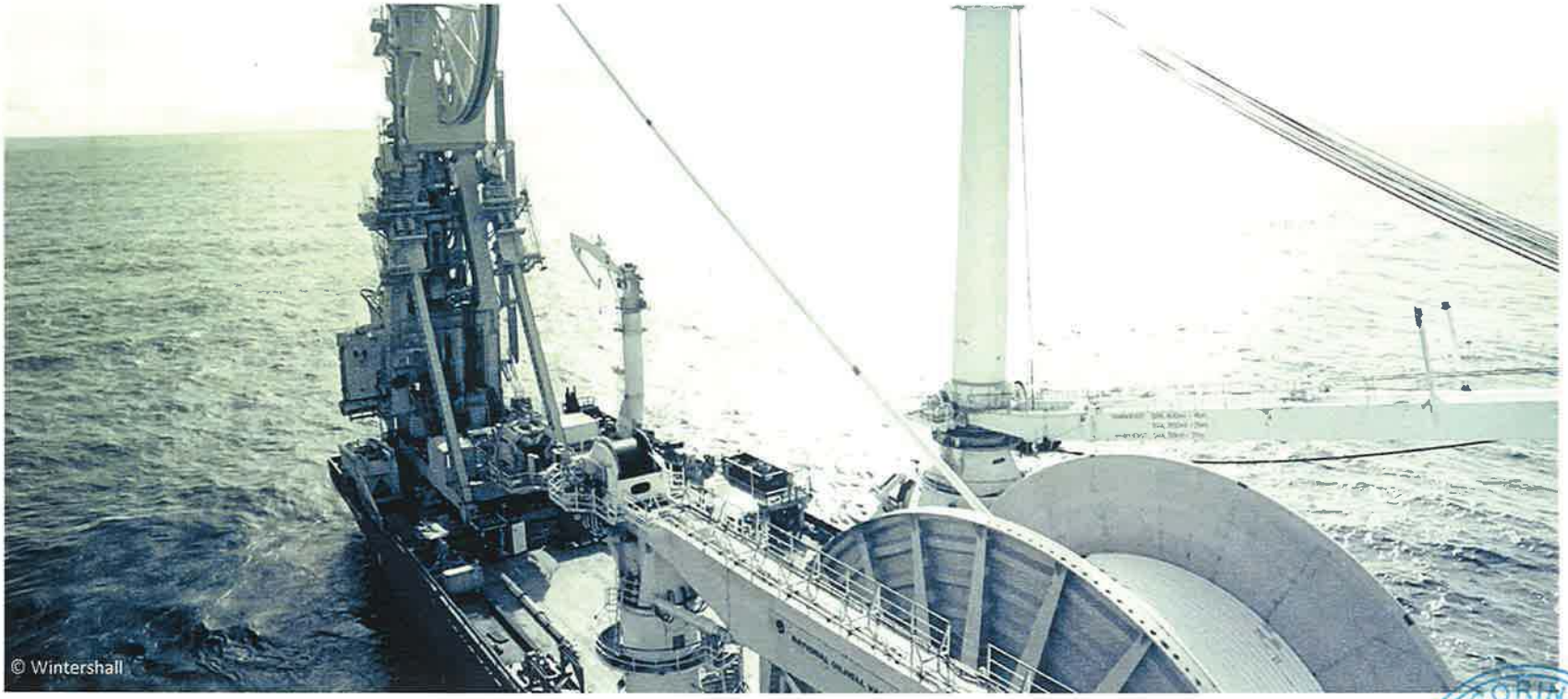
BRIEF PRESENTATION OF MAJOR PROJECTS

HEAD OFFICES: 2-4 Mesogeion Av., 115 27 Athens, Greece
CORPORATE HEADQUARTERS: 11, Anaxousiou-Halandriou Str., GR-15125, Marousi, Athens, Greece
Tel: + 30 210 6787 111, Fax: + 30 210 6787 520 / email: info@cpw.gr

General Commercial Registry No: 003978301000
VAT Number: EL 099362325
Tax Office: FAE Athens

CORINTH PIPEWORKS

Delivering energy to the world



Major projects

CORINTH PIPEWORKS S.A.

CORINTH PIPEWORKS
Delivering energy to the world

Main Large Diameter Projects

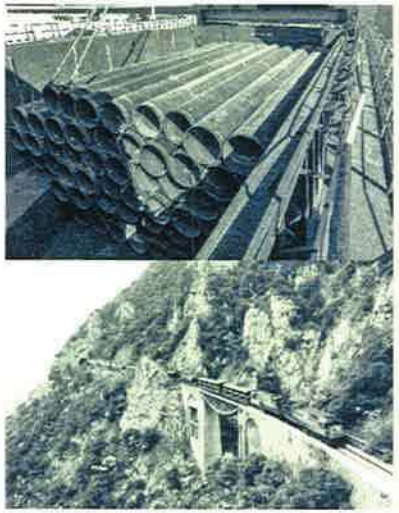
Trans Adriatic Pipeline

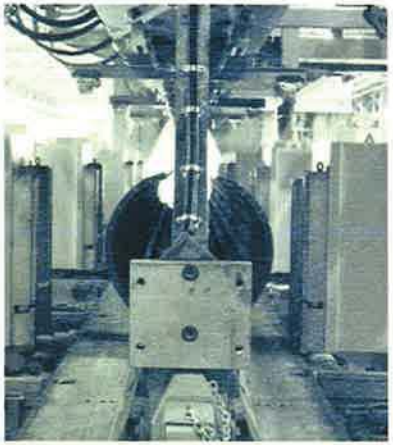
User: TAP A.G.
Country: Greece
Pipe: LSAW & HSAW

495Km, L485/X70
HSAW 48" x 17,5mm
LSAW 48" x 21,0mm

Trans Adriatic Pipeline

Strategic project for the EU energy security





Gazsystem Poland

User: Gazsystem
Country: Poland
Pipe Type: LSAW

2014-2018 frame agreement

73Km LSAW pipes, L485
40"x22,2mm

GAZ system

Highly demanding specifications

South East Supply Header

User: Spectra Energy
Design: CH2M Hill
Country: USA
Pipe Type: HSAW

442Km HSAW pipes, X70/X80
36"/42"x9.8-19.1mm

Spectra Energy

442Km project delivered in USA

WAG Expansion III

User: OMV
Country: Austria
Pipe Type: HSAW

62Km pipes, L485MB
48"x18.7/21.2mm

OMV

Multi logistics delivery with ~0% damage ratio

Rover pipeline

User: Energy Transfer
Country: USA
Pipe Type: HSAW

256Km pipes, X70/X65
30"/36"/42"x13.8/15.7mm

Long relations with customers >1.000Km in 8 years

CORINTH PIPEWORKS
Delivering energy to the world

Main ERW/HFI Projects

Maria offshore pipeline
User : Wintershall
EPC : Subsea 7
Country: Norway
50Km pipes, DNV450
12"x17,5mm in max. length 19.8m

wintershall subsea 7

Reel-lay 19.8m length pipes

Knarr field development
User : BG Norge
EPC : Allseas
Country: Norway
107Km pipes, L450SFD
12"x12,7/13,0mm

BG NORGE Allseas

450m water depth

Greencore CO_2
User : Denbury
Design : CH2M Hill
Country: USA
385Km pipes, X70/X65
20"x11.20/13.44/14.73mm

Denbury

X70 sour service

Red River
User: Plains All American
Country: USA
532Km HFI pipes, X60
16"x7,92/12,7mm, 18m length

Diamond
User: Plains All American
Country: USA
207Km HFI pipes, X60
20"x8,74mm

PLAINS ALL AMERICAN PIPELINE L.P.

Nawara pipeline
User : OMV
Country: Tunisia
400Km pipes, X65
20"x11.91/17,48mm

OMV

Big projects delivered in schedule

Dalton pipeline
User : Williams
Country: USA
191Km pipes, X65
16"/20"/24"x8,74/14,27mm

Williams

up to 24m coated pipes

DAPL pipeline
User: Energy Transfer
Country: USA
293Km pipes, X70/X65 HFI
12"/20"/24"x7,92-13,69mm

CORINTH PIPEWORKS
Delivering energy to the world

Projects around the world (2002-2015)