

# Quality Control Plan - QCP 350302

(Constructional steel work - workshop)

## Electrostatic precipitator

### A 8971.1 Narva 3

(Enefit-140 – Line 1 – Oil shale fired boiler)

**Customer:**

*Enefit Solutions AS  
Malmi 8  
EE-41537 Jöhvi  
Estonia*

**Final customer:**

*Eesti Energia Olitööstus AS  
Auvere küla, Vaivara vald  
EE-40101 Ida-Virumaa  
Estonia*

**Change management:**

Index	Date	Description	Author	Approval
-	07.07.2017	Start version	KMO	DF

No.	QCP 350302 Description of test steps	Scope of test	Reference documents	S/M- plan	S/M- exec.	E- plan	E- exec.	Records/ remarks
<b>1</b>	<b>Checking before manufacturing - workshop</b>							
1.1	Design drawings approved?	100%	Design drawings, order	X				Approved part list, design drawings
1.2	Supplier of constructional steelwork – qualification / certification	100%	EN ISO 3834-2, - 3, EN 1090-1, -2	X				Certificate(s)
1.3	Welding procedures - specification and qualification	100%	EN ISO 15609-1, -2, EN ISO 15607, EN ISO 15610-13	X				WPS, WPQR
1.4	Welders qualification	100%	EN 287-1, EN ISO 9606-1, EN ISO 9606-2	X				Welder certificate(s)
1.5	Welding coordination	100%	EN ISO 14731	X				Certificate(s)
1.6	Qualification of welding inspection personnel – VT, PT (level 2)	100%	EN ISO 9712	X				Certificate(s)
<b>2</b>	<b>Checking during manufacturing - workshop</b>							
2.1	Semi-finished products and materials – type, dimension, number – traceability list: material, drawing, bill of material	100%	Specification	X				Material certificate, EN 10204 - 2.2, - 3.1
2.2	Welding consumables – type, approval, storage	100%	EN 14532-1, - 2, -3, EN ISO 15792-1, -2, -3	X				Material certificate, EN 10204 - 2.2, - 3.1
2.3	Joint preparation	100%	EN ISO 9692-1	X				Record, report
2.4	Visual check, evaluation of welding seams – butt welds, fillet welds - EN ISO 5817 “C”	100%	EN ISO 5817, EN ISO 17637	X				Record, report
2.5	Dye penetrant testing – gas-tight welding seams	SPC	EN ISO 3452-1, -2, -5, -6	X				Record, report
2.6	Dimensional check(s) – component parts, assembly, relevant dimensions – intra/ inter component	100%	Design drawing	X				Drawing, actual dimensions - report

No.	QCP 350302 Description of test steps	Scope of test	Reference documents	S/M- plan	S/M- exec.	E- plan	E- exec.	Records/ remarks
<b>3</b>	<b>Checking of surface coating</b>							
3.1	Surface purity before coating – Sa 2,5	100%	Specification / design drawing  EN ISO 12944-4, EN ISO 2808, EN ISO 19840:2012	X				Record, report
3.2	Environmental conditions – during/after coating: - humidity, - temperature, 3K above dew point, - object temperature > 5°C	100%		X				Record, report
3.3	Surface protection – type, thickness of coating	100%		X				Record, report
<b>4</b>	<b>Final testing, packing, marking, dispatch / shipping</b>							
4.1	Final quality check / approval testing – at manufacturer	100%	Design drawing(s), order, QCP 350302	X, H		STP		Record, report
4.2	Q documentation - completeness	100%		X, H		X		Q documentation
4.3	Release for dispatch / shipping	100%		X, H		X		

<b>Supplier / Manufacturer details</b>	
--	--

**Legend:**

- x S/M: Test step to be executed by Supplier/Manufacturer (S/M)
- x E: Execution of test step to be checked by ELEX (E)
- H Hold Point
- SPC Spot check