	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
		Page No. : 1 / 12
GENERAL SPECIFICATION		

LOCAL CONTROL STATION

ENGINEERING TECHNICAL STANDARDS & PROCEDURES PT KILANG PERTAMINA INTERNASIONAL DIREKTORAT PROYEK INFRASTRUKTUR

			<i>PRY/RH</i>	<i>DH</i>	<i>ASR</i>	<i>JS</i>	<i>BAP</i>
01	Issued For Record	12/21	PRY/RH	DH	ASR	JS	BAP
00	Issued For Record	11/19	PS	DH	GNR	PH	MS
Rev.	Description	Date	Prepared by	Checked by	Verified by	Validated by	Approved By

PT Kilang Pertamina Internasional (PT KPI) Confidential

© 2021 PT KPI. Contains information confidential and/or proprietary to PT KPI and its affiliated companies that is not to be used, disclosed, or reproduced in any form by any non-PT KPI party without PT KPI's prior written permission. All rights reserved.



 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 3 / 12

TABLE OF CONTENTS

DAFTAR ISI

1. INTRODUCTION	4
<i>PENGANTAR</i>	
2. SCOPE	4
<i>LINGKUP</i>	
3. CONFLICTS AND DEVIATIONS.....	4
<i>KONFLIK DAN DEVIASI</i>	
4. ABBREVIATIONS	4
<i>SINGKATAN</i>	
5. DEFINITIONS	5
<i>DEFINISI</i>	
6. CODES AND STANDARDS.....	6
<i>KODE DAN STANDAR</i>	
7. ENVIRONMENTAL CONDITIONS	7
<i>KONDISI LINGKUNGAN</i>	
8. GENERAL	7
<i>UMUM</i>	
9. MATERIAL DESCRIPTION.....	9
<i>DESKRIPSI MATERIAL</i>	
10. SHOP TEST.....	11
<i>PENGUJIAN PABRIK</i>	

Dokumen sesuai dengan aslinya, dicetak pada tanggal 11/06/2026 17:25:49 oleh

 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 4 / 12

1. INTRODUCTION

1.1 This General Specification establishes the minimum requirements for safe and reliable Local Control Station that meets the needs of the Project.

2. SCOPE

2.1 This specification defines minimum requirements for Local Control Station design which will be applied in the Project of the Directorate of Infrastructure Project PT KPI.

3. CONFLICTS AND DEVIATIONS

3.1 Any conflicts between this standard and other applicable Engineering Technical Standards & Procedures (ETSP), or OWNER standard, codes, and forms shall be resolved in writing by OWNER.

3.2 All direct requests to deviate from this standard (ETSP) in writing to OWNER, who shall follow internal OWNER procedure and forward such requests to OWNER for approval.

4. ABBREVIATIONS

4.1 Abbreviations used for this document shall have the following definitions:

AC/ ac	Alternating Current
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization

1. PENGANTAR

1.1 Spesifikasi umum ini menetapkan persyaratan minimum untuk *Local Control Station* yang aman dan mempunyai nilai keandalan serta memenuhi persyaratan dari Proyek.

2. LINGKUP

2.1 Spesifikasi ini menetapkan persyaratan minimum untuk desain *Local Control Station* yang akan diterapkan di Proyek di Direktorat Proyek Infrastruktur PT KPI.

3. KONFLIK DAN DEVIASI

3.1 Apabila terdapat konflik antara standar ini dengan *Engineering Technical Standards & Procedures* (ETSP) yang berlaku lainnya, atau standar PEMILIK, *codes* dan formulir, maka harus diselesaikan secara tertulis oleh PEMILIK.


3.2 Semua permintaan penggunaan standar yang berbeda dari standar ini (ETSP), harus diajukan kepada PEMILIK secara tertulis dengan mengikuti prosedur *internal* PEMILIK untuk mendapatkan persetujuan.

4. SINGKATAN

4.1 Singkatan yang digunakan pada dokumen ini harus memiliki definisi sebagai berikut:

AC/ ac	<i>Alternating Current</i>
IEC	<i>International Electrotechnical Commission</i>
ISO	<i>International Organization for Standardization</i>

Dokumen sesuai dengan aslinya, dicetak pada tanggal 11/06/2026 17:25:49 oleh

 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 5 / 12

5. DEFINITIONS

5.1 The following words shall have these special meanings when used herein:

OWNER Owner of the Plant is defined as PT Kilang Pertamina Internasional

CONTRACTOR/CONSULTANT Defined as the Organization to which PT Kilang Pertamina Internasional assign the work

shall Indicates that the statement is mandatory

should Indicates a recommendation

PURCHASER/BUYER Defined as the Company / Organization that placed the material requisition for equipment, materials or services

VENDOR/SUPPLIER/MANUFACTURER Defined as the company selected to supply the equipment and service detailed in this specification.

Sub VENDOR/ Sub SUPPLIER Is defined as any **SUPPLIER** of equipment and support services for a particular piece of equipment/ package to a **VENDOR/ SUPPLIER**.

5. DEFINISI

5.1 Penggunaan kata-kata berikut harus memiliki arti khusus sebagai berikut:

PEMILIK Pemilik Kilang didefinisikan sebagai PT Kilang Pertamina Internasional

KONTRAKTOR/ KONSULTAN Didefinisikan sebagai Organisasi yang ditunjuk oleh PT Kilang Pertamina Internasional untuk melakukan suatu pekerjaan


shall Menunjukkan bahwa pernyataan itu wajib

should Menunjukkan rekomendasi

PEMBELI Didefinisikan sebagai Perusahaan/ Organisasi yang menempatkan *material requisition* untuk peralatan, *material* atau servis

VENDOR/ PEMASOK/ PEMBUAT Didefinisikan sebagai perusahaan yang dipilih untuk memasok peralatan dan *service* yang dirinci dalam spesifikasi ini.

Sub VENDOR/ Sub PEMASOK Didefinisikan sebagai **PEMASOK** peralatan dan layanan dukungan untuk bagian tertentu peralatan/ paket ke **VENDOR/ PEMASOK**.

 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 6 / 12

6. CODES AND STANDARDS

The following Codes, Standard and Specifications apply to this specification. When an edition date is not indicated for a code or standard or any update in codes and standards in this specification document, the latest edition and addendum in force at the time of purchase shall apply. Material & equipment shall be as a specification or an equal approved by OWNER.

6.1 Applicable Codes and Standards

International Organization for Standardization (ISO)

ISO-1461 Hot Dip Galvanized coatings on Fabricated Iron and Steel Articles – Specifications and Test Method

International Electrotechnical Commission (IEC)

IEC 60079 Explosive atmospheres - All Parts

IEC 60364 Electrical Installations for Buildings

IEC 60529 Degree of Protection Provided by Enclosures (IP Code)

IEC 61914 Cable Cleats for Electrical Installations

IEC 62444 Cable Glands for Electrical Installation

6.2 This specification shall also be read in conjunction with all other specifications and data sheets attached to the material requisition. Any conflicts between the referenced documents shall be identified to the PURCHASER in writing for resolution. In general, when resolving conflicts the following order of precedence

6. KODE DAN STANDAR

Kode, standar, dan spesifikasi berikut berlaku untuk spesifikasi ini. Kode dan standar harus menggunakan edisi yang terbaru atau edisi yang berlaku pada saat pembelian. *Material* & peralatan harus sesuai spesifikasi atau setara dengan yang disetujui oleh PEMILIK.

6.1 Kode dan Standar yang Berlaku

International Organization for Standardization (ISO)

ISO-1461 Hot Dip Galvanized coatings on Fabricated Iron and Steel Articles – Specifications and Test Method

International Electrotechnical Commission (IEC)

IEC 60079 Explosive atmospheres - All Parts


IEC 60364 Electrical Installations for Buildings

IEC 60529 Degree of Protection Provided by Enclosures (IP Code)

IEC 61914 Cable Cleats for Electrical Installations

IEC 62444 Cable Glands for Electrical Installation

6.2 Spesifikasi ini juga harus dibaca bersama dengan semua spesifikasi dan *data sheet* lain yang dilampirkan pada *material requisition*. Setiap konflik antara dokumen yang dirujuk harus diidentifikasi kepada PEMBELI secara tertulis untuk diselesaikan. Secara umum, ketika menyelesaikan konflik,

 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 7 / 12

shall apply:

- a) Data Sheets
- b) Material Requisition
- c) This Specification
- d) Referenced Standards

urutan prioritas berikut akan berlaku:

- a) *Data Sheet*
- b) *Material Requisition*
- c) *This Specification*
- d) *Referenced Standard*

7. ENVIRONMENTAL CONDITIONS

- 7.1 Equipment and material shall be designed and manufactured for use on specified site conditions.
- 7.2 Equipment shall be suitable for the relative humidity conditions as stated in IEC standards.
- 7.3 The atmosphere is to be considered saliferous and dusty.

8. GENERAL


- 8.1 All enclosures shall be weatherproof and have a minimum degree of protection IP55 as defined in IEC 60529. Enclosures shall be rated Exd or Exde for Zone 1 classified area, Exde for Zone 2, classified areas and non-hazardous areas. Gas Group shall be IIB or IIC (when stated in the requisition) with a temperature class of T3 as a minimum.
- 8.2 Equipment and material for installation in hazardous areas shall be labeled, listed, certified, accepted, or otherwise determined to be safe by a nationality recognized testing authority such as:
 - a. BASEEFA (British Approval Service for Electrical Equipment in Flammable Atmosphere), UK
 - b. PTB (Physikalisch Technische Bundesanstalt), Germany
 - c. UL (Underwriter's Laboratory), USA

7. KONDISI LINGKUNGAN

- 7.1 Peralatan dan material harus didesain dan dibuat untuk digunakan pada kondisi lokasi yang ditentukan.
- 7.2 Peralatan harus sesuai untuk kondisi kelembaban relatif sebagaimana dinyatakan dalam standar IEC.
- 7.3 Atmosfer harus dianggap *saliferous* (mengandung garam) dan berdebu

8. UMUM

- 8.1 Semua *enclosure* harus *weatherproof* dan memiliki tingkat proteksi minimum IP55 sebagaimana didefinisikan dalam IEC 60529. *Enclosure* harus diberi *rating* Exd atau Exde untuk klasifikasi *area Zone 1*, Exde untuk klasifikasi *area Zone 2*, dan *non-hazardous area*. Grup Gas harus IIB atau IIC (bila dinyatakan dalam *requisition*) dengan *class* suhu T3 minimum.
- 8.2 Peralatan dan material untuk instalasi di *hazardous area* harus diberi *label*, terdaftar, disertifikasi, diterima, atau ditentukan aman oleh otoritas pengujian yang diakui *nationality/* kebangsaannya seperti:
 - a. BASEEFA (*British Approval Service for Electrical Equipment in Flammable Atmosphere*), UK
 - b. PTB (*Physikalisch Technische Bundesanstalt*), Germany
 - c. UL (*Underwriter's Laboratory*), USA

 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 8 / 12

- | | |
|--|---|
| <p>d. RIIS (The Research Institute of Industrial Safety), Ministry of Labor, Japan</p> <p>e. CSA (Canadian Standard Association), Canada</p> <p>8.3 All equipment shall have robust external fixing lugs for surface mounting.</p> <p>8.4 All equipment shall have an internal/external M6 brass earthing stud complete with locknut and washers which the earth terminal shall be cross bonded to. Studs, locknuts and washers shall be cadmium plated.</p> <p>8.5 Emergency Stop push buttons shall be provided with one pair normally open and one pair normally closed contacts. They shall have a lock off facility that once hit stays in the locked off position. They shall be of the stay-put, mushroom head type and shall be fitted within a guard ring to prevent accidental operation. All stop buttons shall be fitted with a padlocking facility which shall be usable only when the button is in the stay put position.</p> <p>8.6 Start/Stop push button control units will consist of a stop push button which shall be provided with one pair of normally open and one pair normally closed contacts. They shall be of the stay-put, mushroom head type and shall be fitted within a guard ring to prevent accidental operation. All stop buttons shall be fitted with a padlocking facility which shall be usable only when the button is in the stay put position. The start push button shall be non-maintaining with one pair normally open and one pair normally closed contacts. All stop buttons shall be colored red and all start buttons shall be colored</p> | <p>d. RIIS (<i>The Research Institute of Industrial Safety</i>), <i>Ministry of Labor, Japan</i></p> <p>e. CSA (<i>Canadian Standard Association</i>), <i>Canada</i></p> <p>8.3 Semua peralatan harus memiliki eksternal <i>lug</i> yang kuat untuk pemasangan di permukaan.</p> <p>8.4 Semua peralatan harus memiliki <i>internal/eksternal M6 brass earthing stud</i> lengkap dengan <i>locknut</i> dan <i>washer</i> dimana <i>earth terminal</i> harus <i>cross bonded to</i>. <i>Stud, locknut</i> dan <i>washer</i> harus <i>cadmium plated</i>.</p> <p>8.5 <i>Emergency stop push button</i> harus dilengkapi dengan satu pasang kontak <i>normally open</i> dan satu pasang kontak <i>normally close</i>. Harus memiliki fasilitas <i>lock off/</i> penguncian yang sekali ditekan tetap dalam posisi <i>lock off/</i> terkunci. Harus dari <i>stay-put</i>, tipe <i>mushroom head</i> dan harus dipasang dengan <i>guard ring</i> untuk mencegah insiden operasi. Semua <i>stop button</i> harus dilengkapi dengan fasilitas <i>padlocking</i> yang hanya dapat digunakan ketika <i>button/</i> tombol berada dalam posisi tetap diam.</p> <p>8.6 Unit <i>start/ stop push button control</i> harus terdiri dari <i>stop push button</i> yang harus dilengkapi dengan sepasang kontak <i>normally open</i> dan satu pasang <i>normally close</i>. Harus dari <i>stay-put</i>, tipe <i>mushroom head</i> dan harus dipasang dengan <i>guard ring</i> untuk mencegah insiden operasi. Semua <i>stop button</i> harus dilengkapi dengan fasilitas <i>padlocking</i> yang hanya dapat digunakan ketika <i>button/</i> tombol berada dalam posisi tetap diam. <i>Start push button</i> harus tidak perlu pemeliharaan dengan satu pasang kontak <i>normally open</i> dan satu pasang kontak <i>normally close</i>. Semua <i>stop button</i> harus berwarna merah dan semua <i>start</i></p> |
|--|---|

 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 9 / 12

green.

- 8.7 Selector switches shall be fitted with one pair normally open and one pair normally closed contacts in each position.
- 8.8 Ammeters where specified shall be operated from a current transformer with 1 amp secondary winding.
- 8.9 Ammeter scale should be selected so that full load current appears between 50% and 80% of full scale deflection. It also shall have an extended scale of six (6) times full load current. Full load motor current (design value) shall be indicated by a red line on the ammeter scale.
- 8.10 LCS for air cooler motors that are installed on elevated structures shall be provided at grade level for operational convenience, and shall have an additional emergency stop push button (without ammeter and start push button) located near the motors at the air cooler deck.

9. MATERIAL DESCRIPTION


- 9.1 Electric characteristics of each Local Control Station are as follows:
- a. Frequency : 50 Hz
 - b. Control Voltage : 220V AC
 - c. Ammeter Circuit Current : 0 - 1 A
- 9.2 Local Control Stations shall be suitable for non-hazardous area or hazardous area classification, Class-1, Zone -0, Zone-1 or 2, Gas Group B & C.
- 9.3 Outdoor enclosure shall be cast iron with corrosion resistant painting or a corrosion resistant alloy or stainless steel sheet.
- 9.4 Unless otherwise specified, the Local Control Stations will be mounted to the

button harus berwarna hijau

- 8.7 *Selector switch* harus dilengkapi dengan satu pasang kontak *normally open* dan satu pasang kontak *normally close* di setiap posisi.
- 8.8 Jika disyaratkan *ammeter* harus dioperasikan dari transformator arus dengan *winding*/belitan sekunder 1 amp.
- 8.9 Skala *ammeter* harus ditentukan sehingga arus beban penuh muncul antara 50% dan 80% dari defleksi skala penuh. Juga harus memiliki skala yang diperpanjang enam (6) kali arus beban penuh. Arus *motor* beban penuh (nilai desain) harus ditunjukkan oleh garis merah pada skala *ammeter*.
- 8.10 LCS untuk *air cooler motor* yang diinstal pada struktur tinggi harus dipasang pada *grade level* untuk kenyamanan operasional, dan harus memiliki tambahan *emergency stop push button* (tanpa *ammeter* dan *start push button*) yang terletak di dekat *motor* di *air cooler deck*.

9. DESKRIPSI MATERIAL

- 9.1 Karakteristik elektrik dari masing-masing *Local Control Station* adalah sebagai berikut:
- a. Frekuensi : 50 Hz
 - b. *Control Voltage* : 220V AC
 - c. *Ammeter Circuit Current* : 0 - 1 A
- 9.2 *Local Control Station* harus sesuai untuk klasifikasi *non-hazardous area* atau *hazardous area*, *Class-1*, *Zone-0*, *Zone-1* atau 2, Grup Gas B & C.
- 9.3 *Outdoor enclosure* harus dari *cast iron* dengan *painting* tahan korosi atau *corrosion resistant alloy* atau *stainless steel sheet*.
- 9.4 Kecuali ada ketentuan lain, *Local Control Station* akan dipasang ke *wall*/ dinding atau

 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 10 / 12

wall or steel stanchion. Therefore, the Local Control Stations shall have mounting lugs for field installation.

9.5 Cover screws or bolts and nuts shall be made of stainless steel.

9.6 Cable gland with Metric hub completed with plug shall be provided to the bottom of the Local Control Stations for control cable entrance.

9.7 The Local Control Stations will be consist of following components:

- a. Emergency STOP Push Button (for 30kW motor and above)
- b. START - STOP Push Button
- c. Ammeter (for 30kW motor and above)
- d. Change over Switch.

9.8 The Local Control Stations components shall be assembled by vendor including inner wiring and marking according to WIRING DIAGRAM.

9.9 Unless otherwise specified each component shall be as follows:

- 1) Emergency STOP Push Button – Normal closed contact to open when pressed. Button to be colored green, with sign or nameplate (the push button shall be provided with protection cover to avoid unintentional touch)
- 2) START - STOP Push Button:
 - a. START Push Button – Normally open contact to close when pressed. Button to be colored red, with sign or nameplate.
 - b. STOP Push Button – Normal closed contact to open when pressed. Button to be colored green, with sign or nameplate (the push button shall be provided with

steel stanchion. Oleh karena itu, *Local Control Station* harus memiliki *mounting lug* untuk pemasangan di lapangan.

9.5 *Cover screw* atau *bolt* dan *nut* harus terbuat dari *stainless steel*.

9.6 Kabel *gland* dengan *metric hub* yang dilengkapi dengan *plug* harus dipasang di bagian bawah *Local Control Station* untuk jalur masuk kabel kontrol.


9.7 *Local Control Station* akan terdiri dari komponen-komponen berikut:

- a. *Emergency STOP Push Button* (untuk 30kW motor dan lebih)
- b. *START - STOP Push Button*
- c. *Ammeter* (untuk 30kW motor dan lebih)
- d. *Change over Switch*.

9.8 Komponen *Local Control Station* harus dirakit oleh *vendor* termasuk *inner wiring* dan *marking* sesuai dengan *WIRING DIAGRAM*.

9.9 Kecuali ada ketentuan lain, spesifikasi setiap komponen harus sebagai berikut:

- 1) *Emergency STOP Push Button* – Kontak *normal close* akan *open* saat *button/ tombol* ditekan. *Push button* berwarna hijau, dengan *sign* atau *nameplate* (*push button* harus dilengkapi dengan proteksi penutup untuk menghindari sentuhan yang tidak disengaja).
- 2) *START - STOP Push Button*:
 - a. *START Push Button* – Kontak *normal open* akan *close* ketika ditekan. *Push button* berwarna merah, dengan *sign* atau *nameplate*.
 - b. *STOP Push Button* - Kontak *normal close* akan *open* saat ditekan. *Push button* berwarna hijau, dengan *sign* atau *nameplate* (*push button* harus dilengkapi dengan perangkat

 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 11 / 12

a locking device at "STOP" position).

pengunci pada posisi "STOP").

3) Ammeter:

- a. Circuit current rating is 0 - 1 A
- b. Accuracy of the meters shall be class 2.5
- c. Full scale of the meters shall be 2 or 3 times extension.
- d. For motor with DOL starter, 6 times of compressed scale shall be provided also

3) *Ammeter.*

- a. *Circuit current rating* adalah 0 - 1 A
- b. *Akurasi meter* harus *class 2.5*
- c. *Skala penuh dari meter* harus 2 atau 3 kali *extension*.
- d. Untuk *motor* dengan *starter DOL*, harus disediakan juga 6 kali dari *compressed scale*

4) Change Over Switch:

- a. Contact rating: min. 5A at 220V AC
- b. 3 positions with each contactor
- c. With nameplate for each position, ie: REMOTE – OFF – LOCAL

4) *Change Over Switch:*

- a. *Rating* kontak: min. 5A pada 220V AC
- b. 3 posisi dengan setiap kontaktor
- c. Dengan *nameplate* untuk tiap posisi, seperti : *REMOTE – OFF – LOCAL*

5) Selector switch shall be provided with auxiliary contact normally open (NO), this contact shall be closed when selected to REMOTE or LOCAL position.

5) *Selector switch* harus dilengkapi dengan *auxiliary contact normally open (NO)*, kontak ini harus *close* ketika dipilih untuk posisi *REMOTE* atau *LOCAL*.

6) Running & Stop indicator lighting

- a. Running indicator : RED
- b. Stop indicator : GREEN

6) Indikasi lampu untuk *running & stop*

- a. Indikator *running* : MERAH
- b. Indikator *stop* : HIJAU

9.10 Vendor shall provide the nameplates for equipment number.

9.10 *Vendor* harus menyediakan *nameplate* untuk nomor peralatan.

10. SHOP TEST

10.1 The following tests and inspection shall be performed in accordance with applicable standards. Vendor shall prepare the detailed inspection procedure based on the following prior to test for purchaser's approval.

- a. Visual inspection on appearance, construction dimensions,

10. PENGUJIAN PABRIK

10.1 Pengujian dan inspeksi berikut harus dilakukan sesuai dengan standar yang berlaku. *Vendor* harus menyiapkan prosedur inspeksi terperinci berdasarkan hal berikut sebelum pengujian untuk mendapatkan persetujuan Pembeli.

- a. *Visual inspection on appearance, construction dimensions, workmanship,*

 Engineering Technical Standards & Procedures	SUBHOLDING REFINING & PETROCHEMICAL	Doc. No. : RP-ETS-ELE-GS-0022-01-2021
	GENERAL SPECIFICATION LOCAL CONTROL STATION	Page No. : 12 / 12

workmanship, internal wiring, etc

internal wiring, etc

b. Performance test

b. *Performance test*

c. Function test.

c. *Function test.*

10.2 The equipment shall be completed with a factory test certificate.

10.2 Peralatan harus dilengkapi dengan sertifikat pengujian pabrik.