

File No.: 04-1000-20-2020-222

April 27, 2020

s.22(1)

Dear s.22(1)

Re: **Request for Access to Records under the Freedom of Information and Protection of Privacy Act (the "Act")**

I am responding to your request of April 9, 2020 for:

The following records regarding Strata Plan EPS 2285 – 2689 Kingsway, Vancouver, BC V5R 5H4, from January 1, 2013 to December 31, 2016:

- **Construction documents in relation to the backup power generator installation/commission at the above-noted address;**
- **All documentation and verification reports relating to the backup power generator installation/commission at the above-noted address;**
- **Any findings from a City of Vancouver document search regarding the installation/commission of the backup generator for the above-noted address.**

All responsive records are attached.

Under section 52 of the Act you may ask the Information & Privacy Commissioner to review any matter related to the City's response to your request. The Act allows you 30 business days from the date you receive this notice to request a review by writing to: Office of the Information & Privacy Commissioner, info@oipc.bc.ca or by phoning 250-387-5629.

If you request a review, please provide the Commissioner's office with: 1) the request number assigned to your request (#04-1000-20-2020-222); 2) a copy of this letter; 3) a copy of your original request for information sent to the City of Vancouver; and 4) detailed reasons or grounds on which you are seeking the review.

Please do not hesitate to contact the Freedom of Information Office at foi@vancouver.ca if you have any questions.

Yours truly,

Cobi Falconer, FOI Case Manager, for

[Signature on file]

Barbara J. Van Fraassen, BA
Director, Access to Information & Privacy

Barbara.vanfraassen@vancouver.ca
453 W. 12th Avenue Vancouver BC V5Y 1V4

*If you have any questions, please email us at foi@vancouver.ca and we will respond to you as soon as possible. Or you can call the FOI Case Manager at 604.871.6584.

Encl.

:kt

EMERGENCY ELECTRICAL POWER SUPPLY
FOR BUILDINGS
CAN/CSA-C282-05
VERIFICATION REPORT

(This form is to be completed by the manufacturer/supplier of the equipment required under the scope of this Standard and certified by an Electrical Engineer responsible for the project) See Note 2.

Building Address: 2689 Kings Way

Emergency power system supplier/manufacturer:

Company Name: Anser Power Systems Inc

Company Address: 420 Short Rd

Name of the person conducting the test: Marty

Telephone: 604 819 2117 Signature: Marty

Date: 10/21/14

Summary (every line must have the appropriate marking in the space provided).

YES NO
[☒] [☐] Emergency electrical power system is now fully functional in conformance with this Standard.

[☒] [☐] All relevant features of the equipment, wiring and installation with respect to the acceptable performance of the emergency electrical power system have been checked and tested in accordance with the attached checklist/test record.

Certification by the responsible Professional Electrical Engineer:

"I hereby certify that I have inspected the installation of the emergency electrical power system at the above stated address and that to the best of my knowledge, the emergency electrical power system has been installed in conformance with Standard CSA-C282-05 and has been verified in accordance with this verification report".

Name: Marty P. Eng.

Date: Dec 16/2014

Seal/Signature

Attachment

- Notes: (1) One copy of this form is to be given to the Electrical Inspection Authority and one copy is to be given to the owner or owner's representative for this building.
(2) Parts A.1, B.1 and B.2 of the report shall be completed by and Electrical Engineer.

NICOLAE MANISALI P.ENG

JAN 13, 2015



**EMERGENCY ELECTRICAL POWER SUPPLY
FOR BUILDINGS
CAN/CSA-C282-05
VERIFICATION REPORT**

**CHECKLIST FOR EMERGENCY GENERATORS
DESIGN, INSTALLATION AND TESTING**

PART A – EMERGENCY GENERATORS DESIGN REQUIREMENTS

**1. REQUIREMENTS TO PROVIDE AN EMERGENCY GENERATOR
(Division "B", Subsection 3.2.7. of the VBBL)**

- 1.1 For every elevator in a building that is more than 18m high
Yes ✓ No _____ [3.2.7.9.(1)(a)]
- 1.2 For every fire fighter elevator
Yes ✓ No _____
- 1.3 For a fire pump required to provide water supply for fire fighting
Yes ✓ No _____ [3.2.7.9.(1)(b)]
- 1.4 For pressurization fans required to provide limits of smoke movement
Yes ✓ No _____ [3.2.7.9.(1)(c)]
- 1.5 For fans required for smoke venting
Yes ✓ No _____ [3.2.7.9.(1)(d)]
- 1.6 For emergency lighting
Yes ✓ No _____ [3.2.7.4.(1)(a)]
- 1.7 For a fire alarm system
Yes ✓ No _____ [3.2.7.8.(2)(a)]

2. GENERATOR SET DATA (C282-05):

2.1 Electrical characteristics

kw 250 ** volt 120/208
phase 3 wire 4

** kw rating of the generator shall be sufficient capacity to allow normal starting and running of required fire pumps and the fire fighter's elevator while supplying all other loads connected to the generator.

- 2.2 Generator set model # DS 00250 DGSPAH 1574
Generator set serial # 362954-1-1-0713
- 2.3 Engine horsepower requirements [Clause 7.1.1; CSA]
Minimum break horsepower =
Note: Break horsepower shall correspond to generator KW
(see formula in Clause 7.1.1)
- 2.4 Voltage of an emergency supply conforms to CSA CHH3-C235
Yes ☒ No ☐ [Clause 6.3]
- 2.5 Generator set is capable to accept load within 15 sec of the loss of normal power
Yes ☒ No ☐ [Clause 6.4.1]
- 2.6 Engine exhaust system performance [Article 7.2]
- 2.6.1 Exhaust gases are discharged at the point where they will not enter the air intakes of the building
Yes ☒ No ☐ [7.2.1]
- 2.6.2 Exhaust system is insulated
Yes ☒ No ☐ [7.2.2.]
- 2.6.3 Exhaust piping is discharged to the atmosphere
Yes ☒ No ☐ [7.2.3]
- 2.6.4 Exhaust piping is discharged into a boiler or a stack designed to accept high temperatures and added volume of the gas being discharged.
Yes ☒ No ☐ [7.2.3]
- 2.6.5 Exhaust system is provided with a muffler
Yes ☒ No ☐ [7.2.4]
- 2.6.6 Exhaust system is provided with means to remove water from the exhaust piping
Yes ☐ No ☒ [7.2.5]
- 2.6.7 Exhaust system is provided with the means to keep rainwater out of piping
Yes ☒ No ☐ [7.2.6]

2.6.8 Exhaust pipe is arranged to allow expansion without damage to the engine, the piping or the building structure

Yes ☒ No ☐ [7.2.7]

2.6.9 Connection between exhaust pipe and exhaust manifold is flexible to prevent transmission of vibration to the exhaust system

Yes ☒ No ☐ [7.2.8]

2.6.10 Exhaust piping is sized to ensure that the back pressure on the engine does not exceed manufacturer's recommendation

Yes ☒ No ☐ [7.2.9]

2.7 Engine fuel supply [Article 7.3]

2.7.1 Fuel supply on site at all times for at least 2 hours operation of the engine under full load

Yes ☒ No ☐ [7.3.1]

2.7.2 Day tank with capacity to operate for 4 hours under full load in the generator room

Yes ☒ No ☐ [7.3.7]

2.7.3 Provisions for refilling of the day tank if capacity is less than 4 hours

Yes ☐ No ☐ [7.3.8] N/A

2.7.4 Protection of fuel piping controls and wiring for installations where fuel stored in the generator room is less than required for 2h operation at full load

Yes ☒ No ☐ [7.3.10]

2.7.5 A flexible connection in fuel supply line is provided

Yes ☒ No ☐ [7.2.13]

2.8 Control Panel [Article 7.4]

2.8.1 Automatic remote start capability is provided

Yes ☒ No ☐ [7.4.1(a)]

2.8.2 "Manual-off-automatic" switch is provided

Yes ☒ No ☐ [7.4.1(b)]

2.8.3 Controls to shut down engine are provided

Yes ☒ No ☐ [7.4.1(c) and 7.4.1(g)]

2.8.4 Alarm indicators are provided

Yes ☒ No ☐ [7.4.1(d) and 7.4.1(e)]

2.8.5 Local and remote means are provided to monitor an air shut down damper

Yes ☐ No ☐ [7.4.2] N/A

2.9 Requirements for engine cranking cycle are met

Yes ☒ No ☐ [7.5]

2.10 Power for starting [Article 7.6]

2.10.1 Requirements for storage batteries and battery charger are met

Yes ☒ No ☐ [7.6.1.1]

2.10.2 The supply of compressed air for engine starting is provided

Yes ☐ No ☐ [7.6.2] N/A

2.11 Generator, Exciters and Voltage Regulation [Subsection 8]

2.11.1 Generator construction and performance is in compliance with CSA Standard C22.2 No. 100

Yes ☒ No ☐ [8.1.1]

2.11.2 Generator performance conforms to Article 8.2

Yes ☒ No ☐ [8.2]

2.11.3 Exciter is of the direct connected or static type

Yes ☒ No ☐ [8.4]

2.11.4 Automatic voltage regulator is of the magnet amplifier or solid state type

Yes ☒ No ☐ [8.5]

2.11.5 Means to ensure adequate voltage build up on initial start are provided

Yes ☒ No ☐ [8.6]

2.11.6 Coordination of over current protective devices is provided

Yes ☒ No ☐ [8.7.1]

2.11.7 A lockable automatic device is used to disconnect the generator

Yes ☒ No ☐ [8.7.2]

2.11.8 Generator controls conform to Clause 8.8

Yes ☒ No ☐ [8.8]

3. **TRANSFER SWITCH DATA: [Subsection 9]**

3.1 Conformance with CSA Standard C22.2 No. 178 is met

Yes ☒ No ☐ [9.1.4]

3.2 The emergency power supply is checked for correct phase rotation with respect to the normal power supply

Yes ☒ No ☐ [9.2]

3.3 Electrical characteristics requirements conform to Article 9.3

Yes ☒ No ☐ [9.3]

3.4 Automatic transfer requirements conform to Article 9.4

Yes ☒ No ☐ [9.4]

3.5 Manual by-pass and isolation switch conforms to Article 9.5

Yes ☒ No ☐ [9.5]

PART B – EMERGENCY GENERATORS INSTALLATION REQUIREMENTS

1. **GENERATOR SET LOCATION: [Subsection 6; C282-05]**

1.1 The generating set is located in a separate room having a fire resistance rating in conformance with the VBBL

Yes ☒ No ☐ [6.2]

1.2 Adequate working space around the generator set is provided in conformance with Clause 6.5.1

Yes ☒ No ☐

1.3 The generating set vibration is taken into account in the structural design of the foundation as per Article 6.6

Yes ☒ No ☐

1.4 Ventilation of the room required in item 1.1 above, is provided in conformance with Article 6.7

Yes ☒ No ☐

1.5 The generator room temperature conforms to Article 6.8

Yes ☒ No ☐

1.6 A unit equipment for emergency lighting is provided in the generator room as per Article 6.11

Yes ☒ No ☐

2. GENERAL INSTALLATION REQUIREMENTS

2.1 Installation of a generating set conforms to the Standard NFPA 37

Yes ☒ No ☐ [Article 4.2]

2.2 Wiring methods and installation of electrical equipment conform with the City of Vancouver Electrical By-law No. 5563

Yes ☒ No ☐ [Article 4.3]

2.3 Conductors between the generator and associated equipment are protected against exposure to fire in accordance with Article 3.2.6.9. of the VBBL

Yes ☒ No ☐ [Article 5.3]

2.4 Installation of fuel supply for a generator set conforms with CSA Standard B139 or B149.1

Yes ☒ No ☐ [Article 4.4]

2.5 Generator is designed and installed to resist 100% of the earthquake loads and their effect

Re: Division B, Article 4.1.8.3 of the VBBL

Yes ☒ No ☐

PART C - EMERGENCY GENERATORS INITIAL INSTALLATION PERFORMANCE TESTS REQUIREMENTS [C282-05]

1. OPERATIONAL TEST [Article 10.2]:

1.1 A "Cold Start" operational test is conducted

Yes ☒ No ☐ [10.2.1 and 10.2.2]

1.2 Data required by Clause 10.2.3 is observed and recorded

Yes ☒ No ☐

2. **FULL LOAD TEST [Article 10.3]:**

2.1 A full load test conforming to Clauses 10.3.1 – 10.3.3 is conducted

Yes ☒ No ☐

2.2 Data required by Clause 10.2.3 is recorded

Yes ☒ No ☐ [10.3.4]

3. **CYCLE CRANK TEST [Article 10.4]:**

3.1 Cranking cycle specified in Article 7.5 is observed and recorded

Yes ☒ No ☐

3.2 Cranking cycle is repeated to demonstrate performance requirements as specified in Clause 10.4.3

Yes ☒ No ☐

4. **THE EMERGENCY SUPPLY IS TESTED TO ENSURE PERFORMANCE OF SAFETY SHUTDOWNS AND ALARMS [Article 10.5]:**

Yes ☒ No ☐

5. **GENERATOR ROOM VENTILATION IS TESTED [Article 10.6]:**

Yes ☒ No ☐

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**EMERGENCY ELECTRICAL POWER SUPPLY
FOR BUILDINGS
CAN/CSA-C282-05
VERIFICATION REPORT**

(This form is to be completed by the manufacturer/ supplier of the equipment required under the scope of this Standard and certified by an Electrical Engineer responsible for the project) See Note 2.

Building Address: 2689 KINGSWAY

Emergency power system supplier/ manufacturer:

Company Name: ANSER POWER SYSTEMS

Company Address: 420 SHORT RD.

Name of the person conducting the test: MARTY

Telephone: 604-819-2117 Signature: _____

Date: 10/21/14

Summary (every line must have the appropriate marking in the space provided).

- YES NO
[☒] [☐] Emergency electrical power system is now fully functional in conformance with this Standard.
- [☒] [☐] All relevant features of the equipment, wiring and installation with respect to the acceptable performance of the emergency electrical power system have been checked and tested in accordance with the attached checklist/test record.

Certification by the responsible Professional Electrical Engineer:

"I hereby certify that I have inspected the installation of the emergency electrical power system at the above stated address and that to the best of my knowledge, the emergency electrical power system has been installed in conformance with Standard CSA-C282-05 and has been verified in accordance with this verification report"

Name: NICOLAE MANISALI, P. Eng.

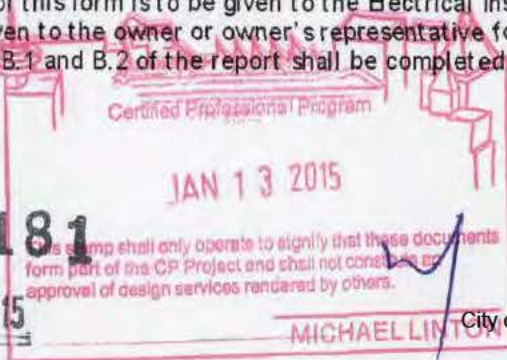
Date: JAN 13, 2015

Seal/ Signature

Attachment ☒

- Notes: (1) One copy of this form is to be given to the Electrical Inspection Authority and one copy is to be given to the owner or owner's representative for this building.
(2) Parts A.1, B.1 and B.2 of the report shall be completed by and Electrical Engineer.

BRAM COWAN DBI
PERMIT **BU 454181**
JAN 22 2015



SRC PR#2149



A - Initial Start-Up Validation and Commissioning Request Form

Requested Date:

☐ First Visit ☐ Follow-up Visit

Instructions This form must be completed by the owner/contractor to ensure proper installation of the engine-generator set prior to scheduling a start-up date and to request start-up service from an authorized MTU Onsite Energy distributor or regional service center.		Start-Up Validation Checklist <input checked="" type="checkbox"/> Unit set in final location <input checked="" type="checkbox"/> Radiator ducted to air discharge louvers <input checked="" type="checkbox"/> Intake and discharge air louvers installed and wired (if applicable) <input checked="" type="checkbox"/> Unit filled with oil to proper level <input checked="" type="checkbox"/> Unit filled with coolant to proper level <input checked="" type="checkbox"/> Battery filled and fully charged <input checked="" type="checkbox"/> Battery charger mounted with AC and DC wiring <input checked="" type="checkbox"/> Block heater wired to correct AC power supply <input checked="" type="checkbox"/> Switch gear / Transfer switch connections made <input checked="" type="checkbox"/> All other AC and DC electrical connections made <input checked="" type="checkbox"/> Fuel inlet and return lines run between the unit and fuel storage system <input checked="" type="checkbox"/> Fuel storage system filled with sufficient quantity for commissioning <input checked="" type="checkbox"/> Exhaust system properly installed and supported <input type="checkbox"/> Radiator and engine-generator set room is free of debris <input checked="" type="checkbox"/> Permission for use of site load or request load bank <input type="checkbox"/> Other	
Requestor Project Name: <u>Skyway</u> Requestor Name: <u>Thind Properties</u> Site Address: <u>2699 Kingsway</u> Requestor Telephone: <u>604-805-4004</u> Requestor E-mail: <u>dave@thind.ca</u>			
Engine-Generator Set Nameplate Model Number: <u>DS0025006SPAH1574</u> Serial Number: <u>362954-1-1-0713</u> Rating: <u>Standby Service</u> HZ: <u>60</u> kW: <u>250</u> kVA: <u>312</u> Volts: <u>120/208</u> Phase: <u>3</u> Amps/Terminal: <u>867</u>			
Engine Model Number: <u>MTU 6R1600 G70S</u> Serial Number: <u>16301002166</u> Fuel Type <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> NG <input type="checkbox"/> LP Vapor <input type="checkbox"/> Liquid LP			
Transfer Switch / Switch Gear Manufacturer: <u>ASCO</u> Model Number: <u>MTU 6R1600 G70S</u> Serial Number: <u>16301002166</u>			
Utility Service Volts: <u>120/208</u> Phase: <u>3</u> Phase Rotation: <u>CCW</u> AMPS: <u>160 600 400</u>		NOTE: If the tasks on this checklist are not adequately completed upon arrival of the authorized MTU Onsite Energy technician or for reasons beyond MTU Onsite Energy's control, an additional start-up charge may be incurred. Please re-submit request form A when items are addressed.	
Load Bank Load Bank Request: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Capacity: <u>160 kW</u>		Completed by (signature): <u>[Signature]</u> Name: <u>Marcel DB</u> Date: <u>10/21/14</u> Certified Professional Program	

V-599-1001

 BRAM COWAN DBI
 BU 454181

JAN 22 2015 2013-08

JAN 13 2015

 This stamp shall only operate to signify that these documents form part of the CP Project and shall not constitute an approval of design services rendered by others.
 © MTU Onsite Energy Corp.

MICHAEL LINTON



B - MTU Engine-Generator Set Installation Validation Checklist

Instructions This form must be completed and signed by an MTU Onsite Energy certified technician in order for coverage under the MTU Onsite Energy Limited Warranty. This checklist includes the physical installation and pre-start up reviews for open and enclosed engine-generator sets. Upon completion, three signed copies of this form B must be distributed within 30 days to: 1) Distributor/Dealer, 2) owner and 3) attached to cover letter with Form C to MTU Onsite Energy regional warranty department.	Safety Requirements <input checked="" type="checkbox"/> Commissioning performed by qualified personnel <input checked="" type="checkbox"/> All personal protection equipment is available and functional <input checked="" type="checkbox"/> Ensure hot part safety decals/guards are present <input checked="" type="checkbox"/> Ensure engine operation is inhibited <input checked="" type="checkbox"/> Engine-generator set is free from debris, parts and tools <input checked="" type="checkbox"/> Remove any shipping blocks installed <input type="checkbox"/> No loose materials near engine-generator set <input checked="" type="checkbox"/> Air ducts clear and clean <input checked="" type="checkbox"/> Access & egress routes unobstructed & labeled <input checked="" type="checkbox"/> Control & maintenance positions unobstructed <input checked="" type="checkbox"/> Room secure - no unauthorized access <input checked="" type="checkbox"/> Engine-generator set leveled - mounting bolts secure <input checked="" type="checkbox"/> Pipelines and cables are secure with no trip hazards <input checked="" type="checkbox"/> Overhead obstructions clearly marked and labeled <input checked="" type="checkbox"/> Electrical bonding complete <input checked="" type="checkbox"/> Lockout/Tagout/Start-up procedures in place
Requestor Project Name Requestor Name Site Address Requestor Telephone Requestor E-mail	Engine Room Requirements- Open Power Units <input checked="" type="checkbox"/> Engine room is located as close as practical to the main consumer <input checked="" type="checkbox"/> Space for maintenance is left around engine-generator set <input checked="" type="checkbox"/> Engine-generator set installed in a fire resistant room <input type="checkbox"/> Engine-generator set room equipped with a dry chemical fire suppression system <input type="checkbox"/> Battery powered back-up lights available <input checked="" type="checkbox"/> Adequate protection against extreme weather
Engine-Generator Set Nameplate Model Number <u>DS500 250 DB SPAN 1574</u> Serial Number <u>362954-1-1-0713</u> Rating <u>Standby Service</u> HZ <u>60</u> KW <u>250</u> kVA <u>312</u> Volts <u>120/208</u> Phase <u>3φ</u> Amps/Terminal <u>867</u>	Engine Generator Set Room Ventilation <input type="checkbox"/> Intake and exhaust opening properly sized and louvers installed (if required) <input checked="" type="checkbox"/> Flexible duct section installed <input checked="" type="checkbox"/> Radiator duct properly sized to louver <input type="checkbox"/> Proper air flow direction past alternator and then the engine <input type="checkbox"/> Engine room inlet air filter is in place <input checked="" type="checkbox"/> Weather/Animal guard is fitted to intake and outlet
Engine Model Number <u>MTU 6R 1600 G705</u> Serial Number <u>1630 1002 166</u> Fuel Type <input checked="" type="checkbox"/> Diesel <input type="checkbox"/> NG <input type="checkbox"/> LP Vapor <input type="checkbox"/> Liquid LP	Transfer Switch / Switch Gear Manufacturer <u>ASCO</u> Model Number <u>DO2300A</u> Serial Number <u>1045088</u> <u>30100C1X6</u>
Utility Service Volts <u>120/208</u> Phase <u>3φ</u> Phase Rotation <u>CCW</u> Amps <u>60, 400, 600</u>	



B - MTU Engine-Generator Set Installation Validation Checklist

<p>N/A Self-contained Engine-Generator Set Ventilation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Engine-generator set intake positioned away from obstruction to airflow <input type="checkbox"/> Radiator discharge positioned away from prevailing winds <input type="checkbox"/> Sufficient clearance around self-contained engine-generator set for airflow 	<p>Heat exchanger & cooling tower systems N/A</p> <ul style="list-style-type: none"> <input type="checkbox"/> Expansion tank is of adequate size <input type="checkbox"/> Overflow is clear and routed to avoid spillage <input type="checkbox"/> Static head is within system capability <input type="checkbox"/> Engine-generator set vent pipes routed upwards toward expansion tank
<p>Cooling System</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Coolant meets published specifications/requirements <input type="checkbox"/> Coolant type and concentration <input checked="" type="checkbox"/> Radiator filled to the proper level <input checked="" type="checkbox"/> Switch on block heater / circulating pump and check function <p>Base-mounted Radiator</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Radiator clean, free from obstruction <input checked="" type="checkbox"/> Radiator air outlet connected to outlet duct <input checked="" type="checkbox"/> Check for possibility of hot air recirculation <input checked="" type="checkbox"/> Access to coolant fill cap clear <input checked="" type="checkbox"/> Engine-generator set vent pipes routed upwards toward radiator expansion tank <input checked="" type="checkbox"/> Pipelines secure and undamaged <input checked="" type="checkbox"/> Overflow clear and routed to avoid spillage 	<ul style="list-style-type: none"> <input type="checkbox"/> Fuel cooler installed (if supplied) <input type="checkbox"/> Pipelines avoid air locks - air bleed valves provided <input type="checkbox"/> Pipelines isolated from engine-generator set vibration <input type="checkbox"/> Pipelines complete, cleaned, tested & painted <input type="checkbox"/> Secondary cooling system is complete <input type="checkbox"/> Cooling tower make up supply is complete <input type="checkbox"/> Auxiliary supply to fans correctly installed <input type="checkbox"/> All proper electrical connections made
<p>Remote-mounted Radiator System N/A</p> <ul style="list-style-type: none"> <input type="checkbox"/> Expansion tank is of adequate size <input type="checkbox"/> Overflow clear and routed to avoid spillage <input type="checkbox"/> Static head is within system capability <input type="checkbox"/> Engine-generator set vent pipes routed upwards toward radiator expansion tank <input type="checkbox"/> Fuel cooler installed (if supplied) <input type="checkbox"/> Avoid air locks in pipelines- air bleed valves provided <input type="checkbox"/> Pipelines isolated from generator set vibration <input type="checkbox"/> Pipelines complete, cleaned, tested & painted <input type="checkbox"/> Auxiliary supply to fans, pumps correctly installed <input type="checkbox"/> All proper electrical connections made 	<p>Mounting / Foundation</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Engine-generator set installed on resilient mounts <input checked="" type="checkbox"/> Static deflection area of mounts not blocked by components <input checked="" type="checkbox"/> Surface is level <input checked="" type="checkbox"/> Support structure is adequate to support engine-generator set weight <input checked="" type="checkbox"/> Engine-generator set is supported at each mount hole location <p>Gas Fuel System N/A</p> <ul style="list-style-type: none"> <input type="checkbox"/> Proper gas supply pressure (in. H₂O) Record static reading <input type="checkbox"/> Dedicated gas supply line of proper size and material <input type="checkbox"/> Check for gas filter / screen <input type="checkbox"/> Check gas solenoid valve operation <input type="checkbox"/> Check supply lines for leaks <input type="checkbox"/> Check manual shut-off valve operation and labeled



B - MTU Engine-Generator Set Installation Validation Checklist

<p>Diesel Fuel System <i>Sub base tank</i></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Adequate, dedicated and minimal restricted fuel supply lines <input checked="" type="checkbox"/> Adequate room is left for fuel tank inspections <input checked="" type="checkbox"/> Tank is not over-filled <input checked="" type="checkbox"/> Tank is not in the vicinity of exhaust or other heat sources <i>N/A</i> <input type="checkbox"/> Fuel cooler plumbed and wired correctly (if required) <input checked="" type="checkbox"/> Fuel returns to fuel tank without restriction, proper sized pipe <input checked="" type="checkbox"/> Fuel lines free from tension, chafing or kinking (proper material) <input checked="" type="checkbox"/> Flexible lines installed in fuel system <i>N/A</i> <input type="checkbox"/> Fuel prefilter installed before engine inlet (if required) <i>N/A</i> <input type="checkbox"/> Electronic pump used from main storage to day tank <i>N/A</i> <input type="checkbox"/> Day tank controls / pumps installed (when required) <i>N/A</i> <input type="checkbox"/> Fuel transfer pump connected to emergency power <i>N/A</i> <input type="checkbox"/> Level indicator used for checking tank contents <input checked="" type="checkbox"/> Leak sensors are in place (if required) <input checked="" type="checkbox"/> All proper control and sensor connections made <input checked="" type="checkbox"/> Spill containment procedure in place per code 	<p>Exhaust System</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Flexible connectors installed at engine exhaust outlet <input checked="" type="checkbox"/> Flexible connectors installed correctly <i>N/A</i> <input type="checkbox"/> Exhaust line condensate trap with drain installed <input checked="" type="checkbox"/> Specified silencer installed and secure <i>Factory muffler</i> <input checked="" type="checkbox"/> Heat-isolating thimble(s) installed through walls <i>Black/concrete walls</i> <input checked="" type="checkbox"/> Exhaust system not exceeding maximum allowable back pressure limit <input checked="" type="checkbox"/> Exhaust piping diameter properly sized for length of run <input checked="" type="checkbox"/> No diameter reductions downstream on exhaust pipes <input checked="" type="checkbox"/> All exhaust system weight is properly supported <input checked="" type="checkbox"/> Proper pipe wall thickness is maintained <input checked="" type="checkbox"/> Exhaust lines are properly insulated (if required) <input checked="" type="checkbox"/> Exhaust installed with a downward pitch to outlet <input checked="" type="checkbox"/> Exhaust line protected from natural elements (rain cap installed when required) <i>Grill</i> <input checked="" type="checkbox"/> Exhaust gas prevented from re-entry to building <input checked="" type="checkbox"/> Individuals are protected from high temperature exhaust parts <input checked="" type="checkbox"/> Hot parts safety decals/guards are present <input checked="" type="checkbox"/> Flue/thimble is designed and installed properly <i>Through wall concrete</i>
<p>Lube-Oil System</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Oil meets published specifications/requirements <input checked="" type="checkbox"/> Lube-oil type <i>15W-40</i> <input checked="" type="checkbox"/> Engine is filled with oil to proper level <input checked="" type="checkbox"/> No oil leaks present <i>N/A</i> <input type="checkbox"/> Flexible lines installed in make up lube-oil system (if installed) 	<p>Starting System</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Battery charger properly installed and wired <input checked="" type="checkbox"/> Batteries properly installed and wired <input checked="" type="checkbox"/> Cable routing is routed to avoid mechanical damage <input checked="" type="checkbox"/> Battery is located near starter, shortest cable run as possible <p>Engine Management System - Engine Governor</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Engine Control Unit box is free of damage <input checked="" type="checkbox"/> Engine Control Unit box is securely mounted to engine <input checked="" type="checkbox"/> Electrical connections securely fastened <p>Grounding</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Engine and generator are connected to ground via an equipotential bonding strip on the base