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Bid Fax: (604) 775-9381

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise
indicated, all other terms and conditions of the Solicitation
remain the same.

Ce document est par la présente révisé; sauf indication contraire,
les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution
Public Works and Government Services Canada -
Pacific Region
800 Burrard Street, 12th floor
800, rue Burrard, 12e étage
Vancouver
British C
V6Z 0B9

Title - Sujet Lab Exhaust System Alteration	
Solicitation No. - N° de l'invitation EZ899-141333/A	Amendment No. - N° modif. 007
Client Reference No. - N° de référence du client	Date 2014-01-08
GETS Reference No. - N° de référence de SEAG PW-\$PWY-004-7132	
File No. - N° de dossier PWY-3-36145 (004)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2014-01-14	Time Zone Fuseau horaire Pacific Daylight Saving Time PDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Mestry, Ruth (PWY)	Buyer Id - Id de l'acheteur pwy004
Telephone No. - N° de téléphone (604) 775-9385 ()	FAX No. - N° de FAX (604) 775-6633
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: AAFC - Pacific Agri-Food Research Centre - Summerland, BC	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Solicitation No. - N° de l'invitation

EZ899-141333/A

Client Ref. No. - N° de réf. du client

Amd. No. - N° de la modif.

007

File No. - N° du dossier

PWY-3-36145

Buyer ID - Id de l'acheteur

pw004

CCC No./N° CCC - FMS No/ N° VME

Attached is Addendum No.3

This addendum varies the Contract Documents and will form part of the Contract Documents and is to be read, interpreted and coordinated with all other parts, including General and Supplementary General Conditions of the Contract and all Sections in Division 1. The cost of all work contained herein is to be included in the Contract Sum. The following revisions supersede the information contained in the original drawings and specifications issued for the above named project to the extent referenced and shall become a part thereof.

1 GENERAL

- .1 This addendum is issued prior to receipt of Bids to provide for certain revisions to and clarification to the Contract Documents.
- .2 The work required by this Addendum shall be executed in accordance with the requirements of the Contract and Contract Documents.
- .3 Include in the Stipulated Price, the cost of all work described in this Addendum.

2 QUERIES

- .1 Question 1: The spec call for duct cleaning is this necessary as we are dealing with exhaust system?

Response: Yes. Cleaning is required to prevent contaminating control dampers and linkages and particularly the flow measuring device in each fan.

- .2 Question 2: The Moeller MCC is no longer being made in Canada is the Eaton Freedom 2100 an acceptable replacement?

Response: No new MCC is required. Refer to electrical addendum E01 included in Addendum No. 1.

- .3 Question 3: Is the equipment schedule only on drawings and not in spec?

Response: Equipment schedules are on the drawings. Note that the specifications complement the drawing schedules and expand on the required features, options and details of construction.

- .4 Question 4: Are there any LEED requirements for this project?

Response: No.

- .5 Question 5: Does Bio-hazard hood demo require pre-testing for hazardous material?

Response: Treat demolished ductwork as a hazardous material. Follow procedures as outlined in specification Section 013500 and 013570.

- .6 Question 6: At completion of each phase does every lab need to be tested, balanced and re-commissioned?

Response: The general exhaust, general return, and lab exhaust shall be tested, balanced and re-commissioned at completion of each phase. Scope would include verifying that design air flows have been maintained. For reference, the fume hood and general exhaust valve design flows have been included in a table at the end of specification Section 230802. Several specification sections apply to the situation. For example, refer to Section 011100 all of subsection 1.6, Section 018100 clauses 1.11.1 through 1.11.3, Section 230800 clause 1.18.2, Section 230801 clause 1.5.2, and Section 230900 clause 1.13.2.

- .7 Question 7: When commissioning Strobics after each phase does manufacturers rep need to be present?

Response: Yes. Several specification sections apply to the situation for both commissioning and demonstration. For example, refer to Section 018200 clause 1.4.1, Section 230800 clauses 1.7.2 and 1.8.1, Section 230802 clauses 1.4.1 and 1.4.2. The mechanical testing and commissioning forms at the back of Section 230802 specifically call for the applicable manufacturer's representative to be present during systems testing.

- .8 Question 8: Section 015600 states that all AHU filters need to be replaced at the end of construction. If this is the case, can you provide quantity and type of filters to be replaced?

Response: Delete response provided in Addendum No. 2. Both AHU filters and air filters in the general exhaust and general return duct mains upstream of heat recovery coils shall be replaced. Air filter quantities are summarized below.

For AHU-8, 9, 10, and 12 provide the following:

- Part # 402994002 RFCMV13 CL2 24x24x12 RIGA-FLO box (MERV13) Quantity: 36.
- Part # 402994005 RFCMV13 CL2 24x12x12 RIGA-FLO box (MERV13) Quantity: 6.

For the general exhaust and general return systems, provide the following:

- Part # 049880003, pleated 2 inch Farr 30/30, MERV8, 2x24.50x19.50 (20x25x2 inch). Quantity: 24.
- Part # 5080007, DU4V-ES-2424-MV11 DURAFIL ES (MERV 11) (24x24x12 inch) Farr. Quantity: 32.

Filters may be obtained through Camfil Farr Canada, 2431 Canoe Avenue, Coquitlam, BC, V3K 6A9, Tel: 604-468-8990, Fax: 604-468-8991.

- .9 Question 9: Structural connections for duct H supports on roof are not shown, the last Duct H supports for existing FVR screwed the plates to Q decking is this acceptable?

Response: Refer to Detail E on drawing S102.

- .10 Question 10: Will there be another site visit arranged for this tender?

Response: Sorry, no further site visits can be accommodated.

- .11 Question 11: Can you tell me who the commissioning authority is?

Response: Western Mechanical Services is the commissioning authority.

- .12 Question 12: Drawing M105 shown caption "All work shown on this drawing is N.I.C. unless otherwise noted." Please clarify which notes apply to Project number R.018297.001.

Response: Drawing notes are specific to the drawing that they appear on. Therefore drawing notes on drawing M105 apply only to that drawing and are therefore NIC. General notes on drawings M002 and M302 and phasing notes apply to the entire project.

3 ELECTRICAL ADDENDUM

- .1 Refer to electrical addendum E02, prepared by Stantec Consulting Ltd., dated January 8, 2014, appended to this Addendum, (17 pages).

End of Addendum

The following changes in the tender documents are effective immediately. This addendum will form part of the contract documents.

ELECTRICAL SPECIFICATIONS

- .1 Section 26 24 13 Secondary Distribution
 - (1) **Add** attached specification section 262413 (total of 9 pages).

- .2 **Add** Appendix F : Panel Schedule
 - (1) **Add:** New switchboard 'MDC-S' Panel Schedule (page 1 of 1).

- .3 **Add** Appendix G: Site Photos
 - (1) **Add:** Site Photos (total of 4 pages).

ELECTRICAL DRAWINGS

- .4 First Floor Plan
 - (1) **Revise** generator room layout as shown on attached **sketch ESK-001** and **add** keynotes #4 to #7 as shown. Existing switchboard 'MDC-S' will be replaced with new switchboard complete with all new feeder breakers rated for 35kA.

- .5 Power Single Line diagram
 - (1) **Revise** power single line diagram as shown on attached **sketch ESK-002** and **add** keynotes #5 to #7 as shown.

END OF ELECTRICAL ADDENDUM #E02

PART 1 - GENERAL

- 1.1 Related Work .1 This Section of the Specification forms part of the Contract Documents and is to be read, interpreted and coordinated with all other parts.
- 1.2 Waste Management and Disposal .1 Separate and recycle waste materials in accordance with Division 01 - Construction/Demolition Waste Management And Disposal and with the Waste Reduction Workplan.
- .2 Avoid using landfill waste disposal procedures when recycling facilities are available.
- .3 Place materials defined as hazardous or toxic waste in designated containers.
- 1.3 Codes and Standards .1 The latest edition of the following codes and standards shall apply:
- .1 CSA C22.2 No. 31 - Switchgear Assemblies
- 1.4 Scope Of Work .1 Existing emergency distribution switchboard 'MDC-S' is FPE CDP panel, 1200A bus, 347/600V, 3 phase, 4 wire and is no longer in production. Replace existing emergency switchboard MDC-S with new switchgear and upgrade all feeder distribution breakers. Provide additional spaces and breakers and a complete system connection to all new and existing secondary sub-distribution.
- .2 Note that the generator room have limited space. Refer to drawings for restrictions. New equipment has to be custom built to fit available space and also to maintain clearance to existing generator. Provide modifications to existing power conduits, feeders, wiring and equipment to suit new switchboard installation.
- .3 Contractor shall allow and include all work after normal hours, evenings and weekends and coordinate with the Departmental representative for proposed power shutdown schedule. Prepare and submit a detailed schedule including all specific tasks and durations ten (10) business days in advance of the proposed date and obtain a written approval from the Departmental representative prior to commencement of the work.
- .4. Contractor shall allow and provide temporary wiring and feeders to maintain power to existing

emergency power panelboards with critical loads during the duration of power shutdown.

1.5 Shop Drawings

- .1 Submit shop drawings in accordance with Section 26 05 00.
- .2 Shop drawings units of measurement shall be SI Units
- .3 Shop drawings shall be submitted to the Departmental representative for review prior to the manufacture of the equipment.
- .4 Shop drawings shall include:
 - .1 Bill of Materials (Major Components including any protective relays).
 - .2 Recommended spare parts including prices, quantities and manufacturer's part numbers.
 - .3 Single line and schematic wiring diagrams showing the any protective relaying, metering and control wiring.
 - .4 Cable terminal sizes
 - .5 Product data sheets
 - .6 Model and make of protective relay
 - .7 Sensor rating of each breaker
 - .8 Breaker and/or fusible-switch layout, type, quantity and ampacity.
 - .9 AIC rating of all components.
 - .10 Complete and integrated fuse/breaker co-ordination curves.
 - .11 Switchboard construction and anchoring method.
 - .12 Dimensioned cable entry and exit locations.
 - .13 Dimensioned position and size of bus.
 - .14 Dimensioned layout of internal and front panel mounted components.
 - .15 Overall length, height and depth of enclosures.
- .5 The following information shall be submitted for record purposes:
 - .1 Final as-built drawings and information for items listed in the above paragraphs.
 - .2 Wiring diagrams
 - .3 Certified production test reports
 - .4 Installation information
 - .5 Seismic certification.
 - .6 Coordination Curve / Time Current Curve provided as to actual settings of Circuit breakers.
 - .7 The final (as-built) drawings shall include the same drawings as the construction drawings and shall incorporate all changes made during the manufacturing process

1.6 Switchgear
Fuse/Circuit Breaker
Co-Ordination

- .1 Switchgear shall be coordinated to ensure that the device nearest to the overload or fault opens first under all overload and fault condition. Verify the ratings and settings of all devices.

1.7 Plant Assembly

- .1 Install circuit breakers in switchboards before shipment from plant.
- .2 Assemble and wire complete secondary switchgear and metering components.
- .3 After completion of tests, prepare switchgear for shipment to site, complete with hardware for re-assembly and re-connecting.
- .4 In addition to CSA requirements, manufacturer's nameplate must show fault current rating of the switchboard assembly.

1.4 Finish

- .1 Apply finishes in accordance with Section 26 05 00. Cubicle exteriors - grey.

1.4 House Keeping Pads

- .1 Provide 100 mm [4"] high (nominal) concrete house keeping pads under all floor mounted equipment unless otherwise indicated.

1.4 Maintenance Data

- .1 Provide data for incorporation into maintenance manual specified in Section 26 05 00.

PART 2 - PRODUCTS

2.1 Enclosures

- .1 Switchgear to be metal enclosed, floor mounted, dead front, indoor enclosure . Bulkhead style including sides, top, door(s), bottom enclosing plate, sills, horizontal and vertical barriers, lintels, supports, reinforcing members; formed, welded and braced into rigid self-supporting structure. Constructed from rolled flat steel sheets.
- .2 Switchgear assembly to be suitable to facilitate draw out switchgear rails/breakers in locations indicated on the project single line drawing.
- .3 Remove burrs and sharp edges from steel work.

- .4 Use non-corrosive bolts and hardware.
- .5 Access from front only.
- .6 Each tub trim cover to be hinged and self supporting and to swing out to expose breaker cable terminations and wireways. Hinged trim shall be secured with cover screws on opening side by machine screws. Cover to be dished, turned edge or similar design to provide rigidity. Breaker panel covers to be door-in-door style. Hinged breaker cover shall be recessed into the hinged overall tub cover. Breaker cover shall have latch type closures. Tub cover shall be secured to tub. Submit details on shop drawings prior to manufacturing.
- .7 Each breaker in the CDP switchboards and panels to be fed with its own set of connector and hardware to allow mounting of similar breakers opposite to one another in double row configuration. Provide all necessary connectors and mounting hardware in every space to facilitate the installation of future breakers.
- .8 Circuit breakers trip size to be visible without removal of the trim. Magnetic adjustment shall be accessible without removal of the trim.
- .9 Cubicle units to have adequate bracing, sufficient volume and ventilating openings to prevent distortion of unit during normal operation and during fuse and circuit breaker operation under short circuit conditions, or when attempting switch closure onto fault.
- .10 Provide "sprinkler-proof" design where equipment is located in areas where sprinkler fire protection is installed. All ventilation slots to be provided with angled louvres to prevent entrance of water from the sprinkler fire protection system.
- .11 Bus bars to be copper or tin plated aluminum minimum 35kA rated.
- .12 Provide main bus ampacity as indicated on the drawings.
- .13 Equipment shall be internally braced to withstand seismic forces.
- .14 Provide integrally mounted TVSS equipment as indicated.

2.2 Circuit Breakers -
Moulded Case

- .1 Moulded case circuit breakers to CSA C22.2 No. 5.
- .2 Bolt-on moulded case thermal magnetic circuit breaker, quick-make, quick-break type, for manual and automatic operation with temperature compensation for 40 degrees C ambient.
- .3 Thermal and instantaneous magnetic trip.
- .4 Common-trip breakers with single handle for multiple applications.
- .5 Trip rating clearly visible and legible with finished panel trim installed.
- .6 Main breaker shall be:
 - .1 Moulded case, 3 pole, rated 600 VAC, with solid state overcurrent sensor and ground fault protection function.
 - .2 Minimum 35,000 amps symmetric interrupting capacity or as indicated on drawings.
- .7 Sub circuit breakers shall be:
 - .1 Moulded case 3 pole with solid state overcurrent sensors.
 - .2 Minimum 35,000 AIC symmetrical for 347/600 volt CDP and distribution panels or as indicated on drawings.

2.3 Solid State Trip
and Protective Relay
Assemblies

- .1 Voltage: and poles as indicated in schedules.
- .2 Interrupting Capacity: 35,000 A symmetrical.
- .3 Construction (breaker): bolt in or draw out (stabs) as indicated.
- .4 Mounting: vertical.
- .5 Normal operation: 40°C ambient.
- .6 Breaker frame: moulded case breaker type design as indicated.
- .7 Breakers shall be equipped with electronic solid-state overcurrent relays.
- .8 The solid-state trip devices shall include the following adjustments:
 - .1 Long delay pickup.
 - .2 Long delay time.
 - .3 Short delay pickup.
 - .4 Short delay time.

- .5 Instantaneous trip.
- .6 Ground fault pickup.
- .7 Ground fault delay time
- .9 Each solid state unit shall include a LED or LCD display indicating the following:
 - .1 Cause of trip
 - .2 Peak level of fault current
 - .3 Phase current.
 - .4 Communications capability.
 - .5 Energy use kWH, kVA, kW, KVARs.
 - .6 Zone selective instantaneous protection
- .10 The solid-state relay shall trip the circuit breaker independent of trip/close control circuits.
- .11 Current monitors:
 - .1 Type: transformer.
 - .2 Mounting: bus.
 - .3 Number required: 4 (3 wire and N system).
- .12 Sensor Unit:
 - .1 Type: solid state electronic sensor powered from current monitor source.
 - .2 Calibration: visible identified trip adjustment-calibration from front of breaker.
 - .3 Mounting: on or within breaker frame.
 - .4 Trip Actuation: powered by circuitry within the monitor sensor device.
 - .5 Trip Actuation: visual On/Off.
- .13 The current coils of all relays and meters shall be capable of withstanding momentary current transformer secondary currents of approximately 20 times the coil rating without incurring any damage.
- .14 Moulded case circuit breakers to CSA C22.2 No. 5.
- .15 Bolt-on moulded case circuit breaker, quick-make, quick-break type, for manual and automatic operation with temperature compensation for 40 degrees C ambient.
- .16 Common-trip breakers with single handle for multiple applications with trip free action and "trip" position separate from "on" and "off" positions.
- .17 Breakers shall be:
 - .1 Moulded case or air circuit breaker, 3 pole, rated 600 VAC, with solid state overcurrent sensor and ground fault protection function as indicated.

- .2 Minimum 35,000 AIC symmetrical for 600 volt or as indicated on drawings.

2.4 Grounding

- .1 Copper ground bus not smaller than 50 x 6 mm [2"x 1/4"] extending full width of cubicle and situated at bottom. Ground bus to be accessible without reaching over the main live bus.
- .2 Lugs at each end for size 4/0 AWG grounding cable.
- .3 Bond non-current carrying metal parts, including switchgear framework, enclosure and bases to ground bus.

2.5 Digital Metering

- .1 Phase metering current transformers shall be located in the circuit breaker compartment on the line and/or load bus as shown on the drawings. The CT's shall be mechanically and thermally rated to withstand any fault condition.
- .2 Secondary windings of phase metering current transformers shall have a nominal rating of 5 A and metering accuracy ratings of 0.6% or better.
- .3 Potential transformers if required shall be located in the low voltage control compartments and shall include both primary and secondary HRC fuses. The primary fuses shall be installed in "pull out dead front" fuse holders.
- .4 Potential transformers shall have 120 V secondary's and metering accuracy ratings shall be 0.6%
- .5 Microprocessor digital metering equipment to be equal to:
 - .1 Multi-function digital meter shall be PML 7350.

2.3 Equipment Identification

- .1 Provide equipment identification in accordance with Section 26 05 00.
- .2 Nameplates:
 - .1 White plate, black letters, size 7.
 - .2 Identify voltage, phases, and ampacity.
 - .3 Distribution section - labeled as indicated.

PART 3 - EXECUTION

3.1 Installation

- .1 Contractor shall verify all dimensions on site. Locate switchgear assembly as indicated. Any variations to be pre-approved by the Departmental representative.
- .2 Install the switchgear with due care and attention. Ensure that the factory finish is not damaged, dented, scratched or warped. Ensure that the switchgear is not dropped or subjected to excessive vibration. The Contractor shall repair and make good any damage or perceived damage to the switchgear to the satisfaction of the Consultant. There shall be no extra costs to the Owner for restoring or repairing the switchgear to the satisfaction of the Consultant.
- .3 The Contractor shall install all equipment per the manufacturer's recommendations and the contract drawings.
- .4 Check factory made connections for mechanical security and electrical continuity. Tighten electrical connectors and terminals, including screws and bolts in accordance with equipment manufacturer's published torque tightening values.
- .5 Install switchgear on 100 mm concrete housekeeping pad unless otherwise detailed.
- .6 Provide all necessary hardware to secure the assembly in place. Secure assemblies to foundation or floor channels. The switchgear shall be seismically restrained.
- .7 Connect load side of breakers in distribution section to distribution feeders as indicated.
- .8 Measuring and record insulation megohm meter readings - phase-to-phase, phase-to-ground, and neutral-to-ground (where applicable).
- .9 Install switchgear accessories cabinet in electrical rooms.
- .10 Provide conduit and signal communications wire as specified by manufacturer or as indicated in these specifications. Make connection to digital meters and/or networked metering communication system.
- .11 Contractor shall verify actual connected loads of all breakers and provide new breaker


identification lamicroids. Perform load reading checks for all new and existing loads and submit test report.

- .12 Provide temporary power feeders, connections and modifications to existing panels and critical load equipment as required to minimize potential disruption to existing facility operation.

3.2 Power Shut Down

- .1 Contractor shall be responsible for a fully coordinated power shutdown as required for the installation and modification of the switchgear equipment include the following:
 - .1 Coordinate and schedule the power shutdown(s) with the Departmental representative and obtain written approval.
 - .2 All requirements to transfer power to standby power (Gen-set start-up, synchronizing, and switching) to be provided by the Contractor.
 - .3 All temporary connections required to be provided by the Contractor.
 - .4 Contractor to be responsible for switching back the electrical systems to the normal source and generators are to be properly shutdown, after completion of the work.
 - .5 Remove any temporary wiring and work and leave in a clean and tidy state.
 - .6 Complete electrical equipment start-up and commissioning tests on site and submit test report prior to substantial completion.

END OF SECTION

New Switchboard Panel Schedule								
Description	Breaker Size (A)	Circuit Number	Load (W)	Phase	Load (W)	Circuit Number	Breaker Size (A)	Description
Panel S	175A-3P	1		A		2	150A-3P	MCC-1S
		3		B		4		
		5		C		6		
Pumps P2	125-3P	7		A		8	200A-3P	MDC-D
		9		B		10		(52-27)
		11		C		12		
Panel SA	100A-3P	13		A		14	15A-3P	Cooling Tower pump CT-01C
		15		B		16		
		17		C		18		
Pumps P1	100A-3P	19		A		20	100A-3P	Panel 1S
		21		B		22		(via 75kVA Xer)
		23		C		24		
MCC-ES	100A-3P	25		A		26	125A-3P	Panel 3S
		27		B		28		(via 112.5kVA Xer)
		29		C		30		
Panel 4SA	70A-3P	31		A		32	40A-3P	Cooling Tower CT-01 heater
(via 45 kVA Xer)		33		B		34		
		35		C		36		
Alternator for Cooling Tower Fans	100A-3P	37		A		38	100A-3P	Panel 5S
(52-13)		39		B		40		(via 45kVA Xer T-5S)
		41		C		42		
MCC-W	225A-3P	43		A		44	225A-3P	MCC-E
(52-2)		45		B		46		(52-24)
		47		C		48		
Cooling Tower #2	200A-3P	49		A		50	225A-3P	MCC-M
		51		B		52		
		53		C		54		
Panel 3S	60A-3P	55		A		56	225A-3P	New CDP-EP
		57		B		58		
		59		C		60		
SPARE	225A-3P	61		A		62	60A-3P	SPARE
		63		B		64		
		65		C		66		
SPARE	100A-3P	67		A		68	60A-3P	TVSS
		69		B		70		
		71		C		72		
P_A	0	P_B	0	P_C	0	P_{Total}	0	Watts
I_A	0	I_B	0	I_C	0	I_{Total}	0	Amperes
<div> <div> Type <input type="checkbox"/> NQOD <input type="checkbox"/> NY1B <input type="checkbox"/> I-Line <input checked="" type="checkbox"/> New CDP <input type="checkbox"/> Existing </div> <div> Voltage 600 Mains <input type="checkbox"/> 600V, 3Ø, 3W <input type="checkbox"/> 120/208V, 3Ø, 3W <input checked="" type="checkbox"/> 347/600V, 3ph, 4W <input type="checkbox"/> Double Neutral <input type="checkbox"/> I.G. Bus </div> <div> <input type="checkbox"/> 225A <input type="checkbox"/> 400A <input type="checkbox"/> 600A <input checked="" type="checkbox"/> 1200A <input checked="" type="checkbox"/> TVSS (180kA) </div> <div> <input type="checkbox"/> Main Lug only <input type="checkbox"/> Main Breaker <input type="checkbox"/> Feed-Thru Lugs <input type="checkbox"/> feed through <input type="checkbox"/> sub feed </div> <div> <input type="checkbox"/> Hinged Trim <input type="checkbox"/> Flush mounted <input checked="" type="checkbox"/> Surface mounted <input type="checkbox"/> Lockable Cover <input checked="" type="checkbox"/> Sprinkler proof </div> <div> <input checked="" type="checkbox"/> TVSS <input type="checkbox"/> fully rated <input type="checkbox"/> series rating <input type="checkbox"/> IC rating kA <input checked="" type="checkbox"/> 35kA <input type="checkbox"/> 42 <input type="checkbox"/> 50 <input type="checkbox"/> 65 <input type="checkbox"/> 100 </div> </div>								
 Stantec				<div> <div> Stantec Consulting Ltd. Tel: (604) 696-8000 Fax: (604) 696-8100 </div> <div> Project Name: Lab Exhaust System Alteration, Pacific Agri-Food Research Centre, Summerland, B.C. Project Number: 12049 Date: 1/8/2014 Designation: MDC-S Location: Generator Room </div> </div>				
				Page 1 of 1				

APPENDIX G

Appendix G – Site Photos

Photo #1

existing 1000kW generator
347/600V, 3 phase 4W in
generator room



Photo #2

existing Automatic Transfer
Switch and transfer switch
controller at northeast wall
location in generator room
(Refer also to sketch ESK-
001)



Photo #3

existing 347/600V
Emergency Distribution
switchboard 'MDC-S'
(located adjacent to
automatic transfer switch)
in generator room



Photo #4

existing Emergency
Distribution switchboard
'MDC-S'
FPE, 1200A bus,
347/600V, 3 phase, 4W
with panel cover removed.



Photo #5

Existing conduits and
feeders entry to top of
switchboard 'MDC-S'.



Photo #6

Existing overhead pipings and conduits above switchboard on north wall of generator room



Photo #7

existing 347/600V Panel 'SA' located adjacent to existing switchboard MDC-S

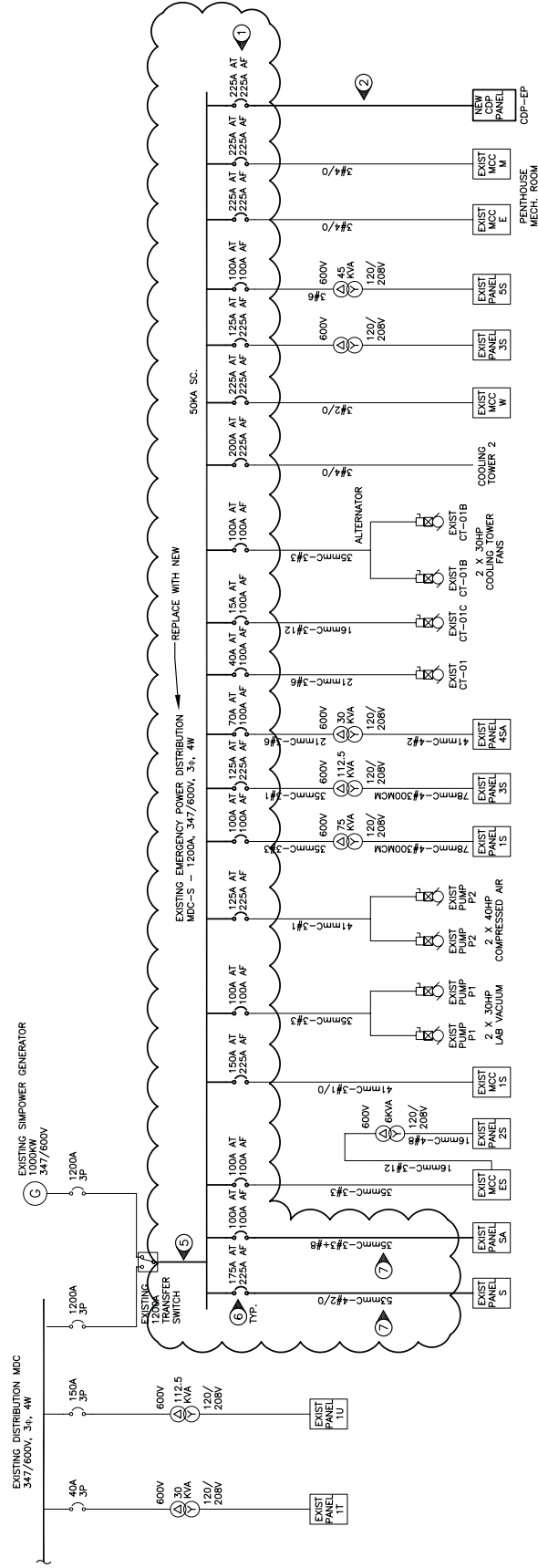
complete with 4x 3P20A breakers feeding various compressors and one 3P50A breaker for exhaust fan EF-7.



Photo #8

existing Panel 'SA' and Panel 'S' located on north wall in generator room





PARTIAL POWER SINGLE LINE DIAGRAM

SCALE: N.T.S.

- 4 THE ADDITION OF NEW BREAKER IN MDC-S TO BE PERFORMED AFTER NORMAL WORKING HOURS. THE ADDITION OF NEW BREAKER SHALL BE COMPLETED WITHIN 2 WEEKS PRIOR TO WORK.
- 5 REPLACE EXISTING POWER FEEDER FROM TRANSFER SWITCH TO NEW MDC-S WITH 4XNEW 4/300CMC.
- 6 REPLACE ALL EXISTING BREAKERS IN MDC-S WITH NEW BREAKERS RATED MINIMUM 35KA S.C.C. RATING.
- 7 REPLACE EXISTING POWER FEEDERS WITH NEW CONDUIT AND WIRING TO NEW MDC-S.

REFER TO DWG E301



1100 - 111 Dunsmuir Street
Vancouver BC Canada
www.stantec.com

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SUMMERLAND-LAB EXHAUST
SYSTEM ALTERATION

SUMMERLAND , BRITISH COLUMBIA

File Name:	JK	SL	SL	14.01.08
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Title

PARTIAL POWER SINGLE LINE DIAGRAM

Project No.	Scale
R.018297.001	AS NOTED

Drawing No.	Sheet	Revision
FSK-002	2 of 2	0

[illegible]

ORIGINAL SHEET - ISO A2