

Yes No THIS DOCUMENT CONTAINS EXPORT CONTROLLED INFORMATION, SEE BASE DOCUMENT FOR FULL LABEL AND RESTRICTIONS



Supplier Deviation Disposition Request

PROJECT: River Protection Project Waste Treatment Plant

JOB No.: 24590

FOR RPP-WTP USE		
RPP-WTP SDDR No. 24590-WTP-SDDR-MS-12-00039	Rev. N/A	DATE RECEIVED 02/29/12

FOR SUPPLIER USE	
SUPPLIER SDDR No. 645-SDDR-008 REV 1	DATE SUBMITTED 24.FEB.12

1. Supplier Name	Address	City & State	Zip
S.A. TECHNOLOGY	3985 S. LINCOLN AVE.	LOVELAND, CO	80537

2. Supplier's Order No.	3. RPP-WTP P.O. or SC	Rev
N/A	24590-QL-POA-MACS-00007	2

4. Deviation Description (Attach extra sheets, photographs, sketches, etc. as necessary and identify quantity and serial numbers as applicable)

Reference 1:
24590-WTP-3PS-MUMI-T0002 Rev 3, Sec 3.5.1.2, "Where practical, the motor base shall be drilled for ground connection. A bolt shall be provided complete with nut and washers."
Deviation:
A nut is not provided.

Reference 2:
24590-WTP-3PS-MUMI-T0002 Rev 3, Sec 3.5.1.3, "Vertical jacking bolts shall be furnished on all horizontal motors 1000 lbs and heavier."
Deviation:
Vertical jacking bolts are not furnished.

Reference 3:
24590-WTP-3PS-MUMI-T0002 Rev 3, Sec 4.3, Nameplate data
Deviation:
Some items may be unclear or not listed as part of the motor nameplate data.

Reference 4:
24590-LAW-3PS-MACS-T0001 Rev 2, Sec 3.15.6, "Provide 10% spare terminals."
Deviation:
10% spare terminals are not evenly distributed.

4a. Was an NCR issued? No Yes Number:

5. Supplier's Proposed Disposition: Use As-Is Repair Modify RPP-WTP Requirement

NOTES:

- 1. Complete instructions provided at end of form.
- 2. Items 1 through 9 and 17 to be completed by Supplier
- 3. Items 10 through 16 to be completed by RPP-WTP.

- 4. Non applicable items to be marked "N/A"
- 5. Attach additional information whenever necessary
- 6. RPP-WTP must be notified within 5 days after detection of deviation
- 7. RPP-WTP selects "Yes", if the SDDR contains or references ECI documents.

24590-ENG-F00001 Rev 36 (Revised 4/11/2011)

Please note that source, special nuclear, and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA) are regulated at the U. S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts that pursuant to AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

Rcf: 24590-WTP-3DP-G04B-00063



Supplier Deviation Disposition Request

Engineering Disposition

24590-WTP-SDDR-MS-12-00039

Page **2** of **12**

PROJECT: River Protection Project Waste Treatment Plant JOB NO.: 24590 SDDR: ↘

Rev. **N/A**

6. Supplier's Estimated Cost Impact: NONE	7. Supplier's Estimated Schedule Impact: NONE
<p>8. Proposed Disposition and Technical Justification (plus Cost/Schedule if applicable): (Attach extra sheets, sketches, etc., as necessary.)</p> <p>Reference 1: The motor base has been drilled and threaded for ground connection, obsoleting the need for a nut. A bolt is provided in combination with the threaded base, complete with washers.</p> <p>Reference 2: Due to precision balancing and alignment of the exhausters and motors, vertical alignment of the motors is custom-tuned for each exhauster assembly by use of precision shims, obsoleting the need for vertical jacking bolts. Because of the precision balancing and alignment required, the manufacturer recommends against using vertical jacking bolts as they may result in a "soft foot" condition, leading to premature equipment failure.</p> <p>Reference 3: Time Rating: Listed on the nameplate as "DUTY CONT" (continuous duty). Temperature Rise/Insulation Class: Listed on the nameplate as "INS CLASS H" (insulation class H). Code Letter for Locked-rotor kVA: Listed on the nameplate as "CODE G". Buyer's Driven Equipment Tag No: Not listed; since the motors are fabricated without knowledge of specific use and/or application, there is no way for the manufacturer to know customer-specific equipment tag numbers. Driven equipment tag numbers are easily located, as required, on the driven equipment attached to the motors. Type of Enclosure: Not listed; the "FRAME 447TS" listing is tied to a single enclosure type of Totally Enclosed, Fan Cooled (TEFC). Space Heater Voltage/Rating: Not listed; the space heaters are 120 VAC.</p> <p>Reference 4: Due to evolving project requirements and consultation with WTP, the signal current to the purge control panel pressure switches was decided to be 24 VDC. This decision required that these signal terminals occupy the limited number of available 24 VDC spares locations previously provided rather than using the surplus 120 VAC positions, reducing the available 24 VDC spare terminals to less than 10%. Total number of available Junction Box spare terminals (24 VDC and 120 VAC) remains at 10% spares.</p>	
<p>9. Supplier's Authorized Representative</p> <p>Robert Conde</p>	<p>Signature </p>
<p>Title</p> <p>Project Manager</p>	<p>Date</p> <p>February 24, 2012</p>
<p>10. RPP-WTP Engineering Action <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved <input checked="" type="checkbox"/> See Below</p>	

Distribution: Procurement & Subcontracts Construction _____

NOTES:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Complete instructions provided at end of form. 2. Items 1 through 9 and 17 to be completed by Supplier 3. Items 10 through 16 to be completed by RPP-WTP. | <ol style="list-style-type: none"> 4. Non applicable items to be marked "N/A" 5. Attach additional information whenever necessary 6. RPP-WTP must be notified within 5 days after detection of deviation 7. RPP-WTP selects "Yes", if the SDDR contains or references ECI documents. |
|--|--|



Supplier Deviation Disposition Request Engineering Disposition

PROJECT: River Protection Project Waste Treatment Plant JOB NO.: 24590 SDDR: 24590-WTP-SDDR-MS-12-00039 Rev. N/A

Title of SDDR: Minor deviations to the motor specification and clarification for spare terminals

11. (OPTIONAL) RPP-WTP Provisional Disposition Statement (Attach extra sheets, sketches, etc., as necessary).

N/A

RPP-WTP Provisional Disposition Justification (Attach extra sheets, sketches, etc., as necessary).

N/A

ATS Number: 24590-WTP-ATS-QAIS- -

RPP-WTP Provisional Disposition Approval:

RE/Originator:	N/A		
	<i>Print/Type Name</i>	<i>Signature</i>	<i>Date</i>
E&NS Review (when required):			
	<i>Print/Type Name</i>	<i>Signature</i>	<i>Date</i>
Approver:			
	<i>Print/Type Name</i>	<i>Signature</i>	<i>Date</i>

12. RPP-WTP Procurement & Subcontracts Action: Commercial Terms Impact:

- Yes *This SDDR grants relief from requirements or changes the requirements and; check each (consideration) item that applies:*
- Modifications to governing terms are required and/or;
 - An increase in price is requested by Seller and/or;
 - A price credit from the Supplier is due and/or;
 - An increase/decrease in the Seller promise delivery date is required.
 - Cost impact, if any is subject to a separate approval process as required by the changes clause.
- No *This SDDR grants relief from requirements or changes the requirements and all of the following apply:*
- No commercial impact (No modification of governing commercial terms is required) and;
 - No increase in price is requested by Seller and;
 - No decrease in price is anticipated or required by Buyer and;
 - No extension of promised shipment is required

- NOTES:**
- | | |
|---|---|
| <p>1. Complete instructions provided at end of form.</p> <p>2. Items 1 through 9 and 17 to be completed by Supplier</p> <p>3. Items 10 through 16 to be completed by RPP-WTP.</p> | <p>4. Non applicable items to be marked "N/A"</p> <p>5. Attach additional information whenever necessary</p> <p>6. RPP-WTP must be notified within 5 days after detection of deviation</p> <p>7. RPP-WTP selects "Yes", if the SDDR contains or references ECI documents.</p> |
|---|---|



Supplier Deviation Disposition Request Engineering Disposition

PROJECT: River Protection Project Waste Treatment Plant JOB NO.: 24590 SDDR: 24590-WTP-SDDR-MS-12-00039 Rev. N/A

Title of SDDR: Minor deviations to the motor specification and clarification for spare terminals

13. Part of DCP?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	DCP Number:		Rev
14. ACA Needed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	ACA Number:		Rev

15. RPP-WTP Final Disposition Statement (Attach extra sheets, sketches, etc., as necessary).
See provisional disposition above. Is the final disposition the same as the provisional disposition? Yes No N/A

Engineering concurs with the suppliers disposition in blocks 4 & 8 of this form. Use As-is.
 References 1 to 4.2 attached for information.
 E&NS screening is required because the MR and affected specifications are Q.

RPP-WTP Justification (Attach extra sheets, sketches, etc., as necessary).
 Engineering concurs with the suppliers justification in block 8 of this form.

REQUIREMENTS REVIEW

Client Approval Required*	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	E&NS Screening Required	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Interface Resolution Required*	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No			

*Address these "yes" answers in the RPP-WTP Disposition Statement (above).

Affected RPP-WTP Documents:

Document Number	Rev	Remarks	Specification Retroactive?		Incorporation by	
			Yes	No	Design Change	Reference
24590-WTP-3PS-MUMI-T0002	3	sections 3.5.1.2, 3.5.1.3 & 4.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24590-LAW-3PS-MACS-T0001	2	section 3.15.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Affected Supplier Submittals:

Document Number	Rev	Document Number	Rev
N/A			

NOTES:

- | | |
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Supplier Deviation Disposition Request Engineering Disposition

PROJECT: River Protection Project Waste Treatment Plant JOB NO.: 24590 SDDR: 24590-WTP-SDDR-12-00039 Rev. N/A

Title of SDDR: Minor deviations to the motor specification and clarification for spare terminals

Reference Documents:			
Document Number	Rev	Document Number	Rev
N/A			

16. RPP-WTP Disposition Approval:

RE/Originator:	D J Rickettson <i>Print/Type Name</i>	 <i>Signature</i>	2/25/12 <i>Date</i>
Checker:	M Parker <i>Print/Type Name</i>	 <i>Signature</i>	3/1/12 <i>Date</i>
Reviewer(s):	B Brackensick <i>Print/Type Name</i>	 <i>Signature</i>	3-1-12 <i>Date</i>
Reviewer:	S Goad <i>Print/Type Name</i>	 <i>Signature</i>	3/1/12 <i>Date</i>
E&NS Review (when required):	RFCARLSTROM <i>Print/Type Name</i>	 <i>Signature</i>	3/1/12 <i>Date</i>
Procurement & Subcontracts Representative:	G Scanlan <i>Print/Type Name</i>	 <i>Signature</i>	3/1/12 <i>Date</i>
Approver(s):	D Mildon <i>Print/Type Name</i>	 <i>Signature</i>	3/1/12 <i>Date</i>

NOTES:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Complete instructions provided at end of form. 2. Items 1 through 9 and 17 to be completed by Supplier 3. Items 10 through 16 to be completed by RPP-WTP. | <ol style="list-style-type: none"> 4. Non applicable items to be marked "N/A" 5. Attach additional information whenever necessary 6. RPP-WTP must be notified within 5 days after detection of deviation 7. RPP-WTP selects "Yes", if the SDDR contains or references ECI documents. |
|--|--|



Supplier Deviation Disposition Request Engineering Disposition

Page 6 of 12

PROJECT: River Protection Project Waste Treatment Plant JOB NO.: 24590 SDDR: 24590-WTP-SDDR-MS-12-00039 Rev. N/A

Title of SDDR: Minor deviations to the motor specification and clarification for spare terminals

Supplier Acknowledgement:

The Supplier accepts the RPP-WTP's disposition herein and agrees to implement the RPP-WTP's disposition accordingly. Return the signed SDDR to the RPP-WTP Project Document Control (PDC).

17. Supplier

Print/Type Supplier Representative Name and Position

Signature

Date

NOTES:

- 1. Complete instructions provided at end of form.
- 2. Items 1 through 9 and 17 to be completed by Supplier
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- 4. Non applicable items to be marked "N/A"
- 5. Attach additional information whenever necessary
- 6. RPP-WTP must be notified within 5 days after detection of deviation
- 7. RPP-WTP selects "Yes", if the SDDR contains or references ECI documents.

3.3.4 Locked Rotor Current

Unless otherwise approved by the Buyer, the locked rotor current of motors shall not exceed the values as shown in NEMA MG-1-1998, section 12.35.1 "Maximum Locked-Rotor Current for 60-Hz Design B, C, and D Motors at 230 Volts". The locked-rotor current of motors designed for voltage 460 shall be proportional to the ratio, 230/460.

3.3.5 Service Factor

The motor shall be sized so that it will not be loaded beyond its design power rating at service factor of 1.0.

3.3.6 Starting Duty

The motor shall be capable of two successive starts with the motor already at full load temperature, or three successive motor starts at ambient temperature, accelerating the load from zero up to full load speed with the motor terminal voltage between 80% and/or 110% of the rated voltage.

3.4 Space Heaters

3.4.1 Unless otherwise specified on the Data Sheet, all outdoor motors greater than 20 HP shall be provided with space heaters. All the space heaters shall be rated at 240 volt for 120 V AC single phase service. Supplier shall list the heater watts on the data sheet.

3.4.2 The heaters shall be readily accessible for inspection, maintenance, and removal without disconnecting the motor from its driven load or moving the motor from its fixed operating position. Space heater leads shall be preferably connected to terminal blocks.

3.5 Mechanical Requirements

3.5.1 General

3.5.1.1 All motors heavier than 50 lbs shall be supplied with an eye bolt for lifting.

REFERENCE 1 →

3.5.1.2 Where practical, the motor base shall be drilled for ground connection. A bolt shall be provided complete with nut and washers.

REFERENCE 2 →

3.5.1.3 Vertical jacking bolts shall be furnished on all horizontal motors 1000 lbs and heavier.

3.5.1.4 Vertical shaft motors for outdoor mounting shall include a steel rain shield, rigidly mounted to the motor frame, except where the end shield design is such as to make it unnecessary. The motor end shield shall be so shaped as to prevent water collecting in the region of the bearing housing.

MS-
3.5.1.5 Protection shall be provided against galvanic action between dissimilar metals by the use of gaskets, washers or other appropriate means.

24590-WTP-SDDR-12-00039

PAGE 7 OF 12

4.3 Nameplates

Each motor shall have a non-corrosive stainless steel nameplate with no less than the minimum information called for in NEMA MG 1. The nameplates shall be attached with pins of the same materials, with the following data as a minimum:

1. Manufacturer's Type and Frame designation
2. Horsepower output
3. Time Rating
4. Temperature rise/Insulation Class
5. Speed at rated Load
6. Frequency
7. Number of Phases
8. Rated Voltage
9. Rated Load Current
10. Code Letter for Locked-rotor kVA
11. Service Factor
12. Buyer's Driven Equipment Tag No.

REFERENCE 3



Additional Nameplate Information

1. Type of Enclosure
2. Manufacturer's name
3. Serial number or date of manufacture
4. Space heater voltage/rating

4.4 Noise Level

4.4.1 Sound level shall be limited to values per NEMA MG-1, Table 9-1.

5 Tests and Inspections

5.1 Shop Tests

5.1.1 Unless with Buyer's prior written approval, all motors, size and type, shall be subjected to a "routine test". A complete or "full test" is required for motors if identified by the primary specification. All tests shall be performed in accordance with applicable National Codes and Industry Standards and/or Manufacturer Standard test procedures and acceptance. As required, all tests shall be performed at the manufacturer's facility. Certified test results shall be provided as identified in the primary specification.

MS-

24590-WTP-SDDR-12-00039

PAGE 8 OF 12



R11304277

MADE IN U.S.A.

RELIANCE ELECTRIC **XT**

DUTY MASTER® A-C MOTOR

FRAME	TYPE	DESIGN	IDENTIFICATION NO.	
447TS	P	B	B658247-010 T1 *	
HP 200	VOLTS 460		HZ 60	PHASE 3
RPM 3570	AMPS 215		S.F. 1.15	CODE G
AMB 50 °C	DUTY CONT		ENCL. TEFC	INS. CLASS H
DRIVE END BEARING	65BC03J30X		XT - EXTRA TOUGH	
OPP. D.E. BEARING	6313/C3VL0241			
MILD ENVIRONMENT MOTOR				
VPI INSUL SLIT FOR 30-60HZ VT ON PWM @1.0 SF GG				

613-5-CP

RELIANCE ELECTRIC COMPANY/GREENVILLE, SC 29615

WARNING

HIGH VOLTAGE AND ROTATING PARTS CAN CAUSE SERIOUS OR FATAL INJURY. INSTALLATION, OPERATION, AND MAINTENANCE OF ELECTRICAL MACHINERY SHOULD BE PERFORMED BY QUALIFIED PERSONNEL. MAKE SURE THAT THE MOTOR AND EQUIPMENT ARE GROUNDED AND PROTECTED IN ACCORDANCE WITH THE NATIONAL ELECTRIC AND LOCAL CODES. SEE NEMA MG-2 SAFETY STANDARD.

692-FR

* DATE CODE AND MONTH/YEAR SHIPPED

Project	Hanford Tank Waste Treatment & Immobilization Plant (WTP)
Project Location	Richland, WA
Buyer's P.O. No.	24590-QL-POA-MACS-00007
Buyer's Equipment No.	LVP-EXHR-00001A/B/C
Buyer's Equipment Service	LAW Off-Gas Exhausters
Client Name	DOE
Spencer Sales Order No.	209355

⊕ **CLASS 1E** ⊕

692-MN

REFERENCE 3.1

GREASE LUBRICATION-NUCLEAR

⊕ LUBRICATE EVERY 3 MONTHS ⊕
USE EXXON POLYREX EM GREASE.
ADD 1.0 CUBIC IN GREASE.

692-VE

MS-
24590-WTP-SDDR-12-00039
PAGE 9 OF 12

PO # 97716, L/I 1
ITEM # MDT 209355P
RIVER PROTECTION PROJECT-
WASTE TREATMENT PLANT
DOE CONT # DE-AC27-01RV14136

24590-QL-POA-MACS-00007-06-00011, Rev.00A

C/R

REV.0

MADE BY J. TSAO
CHK. BY T. WILLIAMS
APPROVED J. MARTIN
DATE 01/07/11

B658247NP

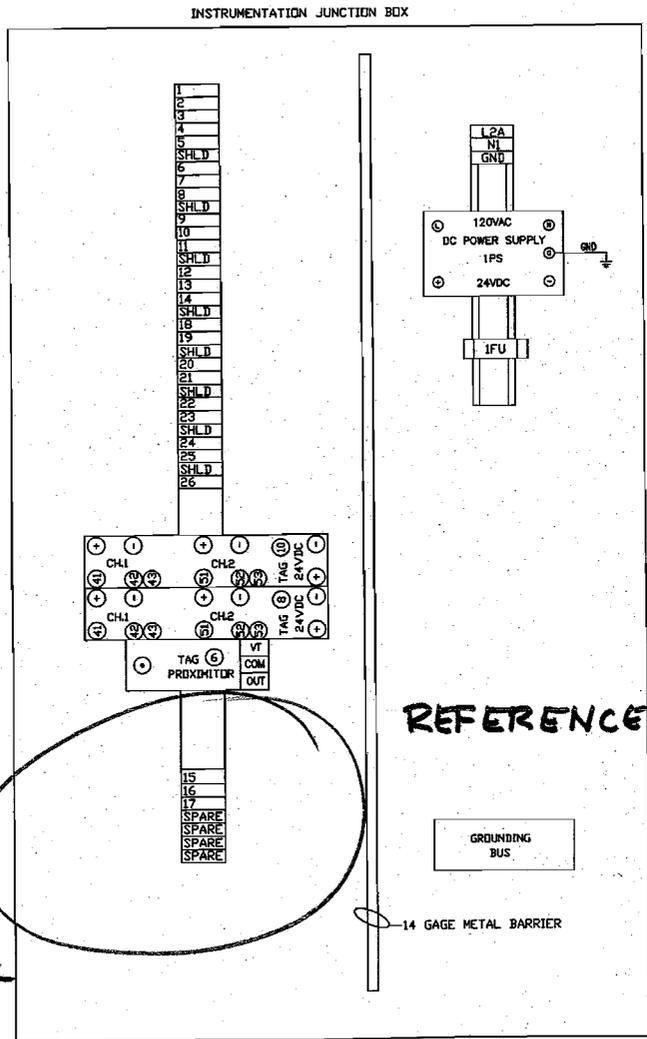
REFERENCE 4

- 3.15.6 Both temperature and speed wires shall be connected to terminal blocks provided by SELLER. Terminal blocks shall be installed in a separate electrical termination box for external connection to Buyer's cable(s). SELLER shall provide sufficient terminals to allow landing and continuation of conductor shields. Provide 10% spare terminals.
- 3.15.7 SELLER shall mount, connect, and wire each instrument or control device such that adjustment, maintenance, removal, and replacement may be accomplished in a safe manner, without interruption of service to adjacent but non-associated equipment, and without placing undue stress on installed wiring or devices. Accommodations for strain relief shall be made when routing wire to hinged enclosure doors and shall be wrapped with spiral wire wrap.
- 3.15.8 Safety signals shall be isolated from non safety controls / monitoring signals.
- 3.15.9 The Buyer will provide power for SELLER instruments. Each source will be delivered at 120 VAC, 1 phase, 60 Hz, grounded system. All other voltages required by SELLER shall be derived from the Buyer-supplied 120 VAC, 1 phase, 60 Hz, grounded system. SELLER to provide any step down transformer from 120 VAC to 24 VDC, if required. Interconnecting wiring or cabling for packaged units furnished by SELLER shall be terminated and tested according to this specification.
- 3.15.10 No more than two wires shall be connected to one terminal point. Internal wiring shall be continuous from terminal to terminal without splices (except devices with pig tails). Bridge or comb jumpers are preferred to wire jumpers on terminal strips. Jumpers shall not be installed on the field side of the terminal strip.
- 3.15.11 All internal enclosure wiring shall be neatly dressed in slotted PVC wire ways. The wire way shall be securely fastened to the enclosure back panel. SELLER shall provide PVC wire ways on the opposite side of field terminations to be used by the Buyer. Adequate space shall be provided around terminal blocks to allow the Buyer to train and terminate cables. The field side wire way shall be designed for multi-core field cables with conductor size of # 14 AWG.
- 3.15.12 Circuits of different voltages (service level) shall be terminated on physically separate terminal strips and clearly labeled to show the circuit voltage. Terminal blocks shall be segregated according to signal type.
- 3.15.13 AC power shall be routed through separate wire ways or separated with a divider from 24 VDC discrete and analog instrument signals within enclosures. Power and signal cabling shall not be run in parallel except in separate wire ways, and should cross at a 90-degree angle only.
- 3.15.14 Wires shall be tagged with SELLER'S cable designation number at both ends with (heat shrinkable or non-shrinkable) plastic sleeve type wire markers.
- 3.15.15 The Buyer will also supply an equipment list in MS Access format which lists each instrument and is arranged in numerical order. SELLER shall populate the instrument list. The fields required to be populated are as follows: Instrument tag number, SELLER's referenced tag number if applicable, Service description, Instrument type, Signal type, P&ID number, Data sheet number if applicable, Location drawing number if applicable, Instrument installation details, Manufacturer name, Model number, Calibration range of instrument, Set point, Wiring

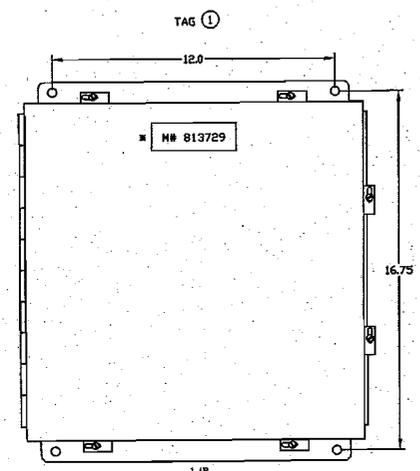
24590-WTP-SDDR-12-00039

PAGE 10 OF 12

REVISIONS				
NO.	DESCRIPTION	BY	DATE	CHK'D BY
1	PER ENG COMMENTS		3-27-11	BW LKZ



REFERENCE 4.2



* NOTE: TYPICAL FOR HW 813729-813732.

THE INFORMATION CONTAINED IN THIS DOCUMENT IS CERTIFIED TO BE CORRECT FOR CONSTRUCTION AND IN ACCORD WITH BECHTEL'S SPECIFICATIONS.

Project: HANFORD TANK WASTE TREATMENT & RECOVERY PLANT (WTP)

Customer: S.A. TECHNOLOGY

Engineer: _____

Submitted by: BWN Date: 1-9-11

THIS CONTROL PANEL SHALL BE BUILT IN STRICT ACCORDANCE WITH U.L. SUBJECT 308A, ISSUE 2

<input type="checkbox"/> PANEL TERMINALS	<input type="checkbox"/> JUNCTION BOX TERMINALS
THIS DOCUMENT AND INFORMATION CONTAINED HEREIN IS PROPRIETARY TO THE SPENCER TURBINE CO. AND SHALL NOT BE USED, COPIED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN AUTHORIZATION IN WRITING BY THE SPENCER TURBINE CO.	
THE SPENCER TURBINE CO. TUBURON, VT. 05789	
FIELD: SCHEMATIC AND INSTRUMENTATION JB LAYOUT	
REV. NO.	REV.
D	1
DATE: 1-9-11	DATE: 6-21-11
SHEET 3 OF 3	

Project: Hanford Tank Waste Treatment & Immobilization Plant (WTP)
 Project Location: Richland, VA
 Buyer's P.O. No: 24590-0L-POA-MACS-00007
 Buyer's Equipment No: LVP-EXHR-00001A/B/C
 Buyer's Equipment Service: LAV DFF-Gas Exhausters
 Client's Name: DOE
 Spencer Sales Order No: 209355

BEFORE

1JB
NEMA-4X
(16" x 14" x 6")
(LOCATED ON BLOWER BASE)

MS

FROM 24590-0L-POA-MACS-00007-06-00012 REV 00B

24590-WTR SDDR-12-00039

PAGE 12 OF 12