

Job Planning Package [Click the ? for online help](#)

Service Request # S421488	Facility: EMSL	Location: Roof above EMSL 3553	Funding WP: R10901
Request Subject:	Design and Install Heat Tape and Insulation on Stack Sampling Piping		
Description:	Design and install Heat Tape and insulation on primary sample tube of stack air sampling system for radioisotope exhaust system. Example design has been provided by Effluent Monitoring that can be used as an example of what is required and is included and used as reference.		
Justification:	Required by Effluent Monitoring		
Systems Affected:	Hvac-Heating And Ventilation Exhaust Air, Others-Stack Monitoring		

JPP Type, Hold Points and Comments

UseCategory	Information
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Basis for Planning

Special Instructions:	This form is used to identify hazards, associated mitigation actions (in addition to those contained in the EMSL Lab Handbook for this space) and provide additional information and/or sequential work steps necessary to complete this task. All staff involved in this task are to completely review this checklist prior to performing any work. If there are any questions immediately contact your Supervisor or the Building Manager.
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Work

Other Design Basis Documents:	Yes		
Specific Design Information:	Facility Modification Permit S412488-01-0-01-00		
Work to be Performed By:	Maintenance Services		
Authorization for Shop/Field Work:	Field Work	Authorized By:	User Facilities Core Team

Lock and Tag Requirements

Personal, Controlling Organization, Written Instructions	Instructions: Apply controlling organization locks and tags to panel GL13, circuit #9, panel GL12, circuit 31 and panel EDL31, circuit 8, prior to starting work. Each person working within the electrical enclosures shall apply personal protection lock and tag over the CO lock-out and perform zero energy check. Remove locks and tags as defined in work steps below.
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Permits and Plans

Facility Modification Permit, Outage Permit

Job Site Prep

Documented Pre-job Meeting	Yes
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Personnel Requirements

Special Training Requirements	Yes	Electrical Worker Safety Trng, EMSL Orientation, Fall Protection
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Job Hazards and Control Methods

Hazards: Exp/energ. elec >50v

Control Methods: Outage Permit Required; Lock and tag

Work Activity

Step Number	Define Work Activity
1	This project installs heat trace and insulation for the stack sampling line on the EMSL Radioisotope exhaust stack. This was overlooked during EMSL construction and is required for accurate sampling, if EMSL is ever to handle dispersible radioisotopes. The stack sample pumps are also being transfer from normal power to standby power in this modification.
2	An outage permit is required for taking the stack sampling system off-line, even though it may not currently be in service. It is required to notify effluent monitoring through the building engineer prior to starting this portion of the job.
3	Apply locks and tags as specified above.
4	Disconnect existing circuit GL12-31 from sampling pump enclosure at termination block at the top of the panel and remove the wires back to the receptacle on the north wall of EMSL 3553.
5	Extend circuit EDL21-8 from receptacle on south wall of EMSL 3553 to sampling pump enclosure. Reuse existing conduit and junction boxes where possible. Install 2#12 & 1 #12 GND in 3/4 EMT. Connect to termination block at the top of the enclosure where the wires were previously removed.
6	Remove locks and tags from panel EDL21, circuit 8. Have power operator verify proper operation of pumping system on new power source.
7	Label power circuits in pumping enclosure with panel and circuit number. Label all junction boxes in this conduit run with the same information.
8	Install unistrut support frame ^{on top} inside of decorative grid at approximately 3'-0" above roof deck and install new receptacle, toggle switch and heat trace cable on roof. Install 1/2" EMT from existing receptacle through existing penetration and to new receptacle, toggle switch and heat trace cable on roof. All parts shall be as shown on the typical drawing for these installations and shall be installed per manufacturer's written instructions and the general notes on this drawing.
9	Install 2#12 & 1 #12 GND from panel GL13, circuit #9 to new roof mounted equipment and make connections as shown. Remove the locks and tags from panel GL13, circuit #9 and GL12, circuit 31 and verify heat trace operation.
10	Label all junction boxes and devices with panel and circuit number.
11	Insulate sampling tube with specified insulation.

Approvals

Building Manager Pete Rojas Date: 6-1-00
 Effluent Management David Douglas Date: 6-2-00
 Facility Project Manager [Signature] Date: 6/1/00
 Safety: Fire [Signature] Date: 6-2-00
 Safety: Industrial Hygiene Marty Moran Date: 6/1/00
 Work Control Specialist [Signature] Date: 6/2/00