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B133 Facility Screening Report (SCR)

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February 7, 2007

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LLNL Facility Screening Report (SCR) for B133

Facility Name

Lead Preparer: Ronneil Estrellado

Date Performed: 5/3/06

Facility Description

B133 is located in the southwest quadrant inside the 1 square mile site of Lawrence Livermore National Laboratory. The property is about 250 meters from the nearest boundary along Vasco Road. Building 133 is a 1 story steel framed building constructed in 1994 with stainless steel sidings. The facility covers 5,631 gross square feet of space. The building is used to house equipment to heat and cool buildings 132N and 132S. A 1380 volts electrical substation is located outside on the northeast corner, along with 2 diesel generators and a 1000 gallons diesel fuel tank. An evaporative cooling tower is located to the south of B133 to dissipate heat from the chillers located in B133. The inside of the facility is divided into three main rooms housing the cooling system units, the boilers, and the electrical distribution panels. The facility has automatic sprinkler system installed through out and a Freon alarm located in room 1000.

Define facility type:

Check:

- ☒ Single Structure or Area: (B/Tr/A) B133
☐ Complex of Buildings: Designation _____
☐ Segment* of Bldg or Complex: _____
Seg.# _____

*Attach justification for segmentation

Owner Organization:Directorate: Chemistry, Materials, and Life SciencesFacility AD: Tomas Diaz de la Rubia**Final Facility Classification: (Check)**

☒ LSI ☐ Low ☐ Moderate ☐ High ☐ Nuclear Facility ☐ Accelerator

Concurrence Signatures for Facility Classified as LSI:**Lead Preparer : [Signature] Date: 1/23/07AB Section Leader or designee: C.M. van Wazer Date: 1/24/07ES&H Team Leader or designee: [Signature] Date: 1/24/07**Approval Signature for Facility Classified as LSI**:**Facility Management: [Signature] Date: 1/26/07**Supporting Documentation Appended**

Check as appropriate:

- ☐ Justification for Segmentation
☐ Chemical Hazard List
☐ Radiological Hazard List
☐ Explosive Hazard List
☒ Building Layout

** Signatures are not required on this form for facilities classified as Low, Moderate or High. Approval signatures for these are on the cover of the Tier 2 or Tier 3 SBDs.

Comments:

Identification of Operations, Inventories, and Hazards	
List key operations that are conducted within the facility:	
Building 133 is used to supply electrical power, chilled water, and hot water to Bldgs 132 N & S. Primary activities include servicing and maintaining chillers, boilers, and electrical distribution equipment.	

Did Facility Management receive any notifications of credible external threats from nearby facilities? yes ☐ no ☒

If yes, list the following for each notification:

Source Facility:	Facility Contact(s):	Phone # (s):

Describe Hazard(s):	N/A
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Hazard Identification Table									
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Check the hazard types found in the facility.

[illegible]

Found	Found		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Biological Hazards	Complete block below

<input checked="" type="checkbox"/>	<input type="checkbox"/>	Biological Hazards	Complete block 1, below
<input type="checkbox"/>	<input type="checkbox"/>		

<input type="checkbox"/>	<input checked="" type="checkbox"/>	Chemical Hazards	Complete block II, below
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	Explosive Hazards	Complete block III, below
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	Radiological Hazards	Complete block IV, below
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<input type="checkbox"/>	<input checked="" type="checkbox"/>	Industrial Hazards	Complete block V, below
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<p>I. Biological Hazards</p> <p>Check BioHazard Type</p> <p><input type="checkbox"/> Non-Select Agents Check highest group in facility: <input type="checkbox"/> RG1 Agents <input type="checkbox"/> RG2 Agents <input type="checkbox"/> RG3 Agents</p> <p><input type="checkbox"/> Select Agents Select highest group in facility: <input type="checkbox"/> RG1 Agents <input type="checkbox"/> RG2 Agents <input type="checkbox"/> RG3 Agents</p> <p><input type="checkbox"/> Other BioHazards (e.g., Blood, nucleic acid, lab animals, contaminated needles/sharps, animal/human tissues)</p> <p>Biological Safety Level (BSL) Check highest level in facility: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> BSL-1 <input type="checkbox"/> BSL-2 <input type="checkbox"/> BSL-3</p>	<p>II. Chemical Hazards</p> <p>Check ChemHazard Type</p> <p><input checked="" type="checkbox"/> Flammable, volatile or fuming <input type="checkbox"/> Toxic materials (acutely toxic, toxic, systemic toxin, toxic gases) <input type="checkbox"/> Corrosives/irritants <input type="checkbox"/> Reactive materials (e.g., air/water sensitive; pyrophoric; thermally, shock, or friction sensitive; perchlorate) <input type="checkbox"/> Carcinogens, mutagens, reproductive hazards <input type="checkbox"/> Pesticides <input type="checkbox"/> Beryllium <input type="checkbox"/> Materials of special concern (e.g., alkali metals, fluorine, asbestos, lead, mercury, PCB) <input type="checkbox"/> Other regulated metals (e.g., chromium, copper, nickel, zinc) <input checked="" type="checkbox"/> Other: <u>Freon 134</u></p> <p>Do any chemicals exceed LSI classification? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>For chemicals that exceed LSI classification, attach maximally planned chemical inventory listing.</p>
<p>III. Explosive Hazards</p> <p>Check</p> <p><input type="checkbox"/> Primary High Explosives <input type="checkbox"/> Secondary High Explosives <input type="checkbox"/> Propellants/Low Explosives <input type="checkbox"/> Firearms Ammunition</p> <p>Do any of the explosive types checked above have any of the following associated hazards? <input type="checkbox"/> Fragmentation Hazards (Primary Fragments) <input type="checkbox"/> Group L Explosives</p> <p>Attach maximally planned inventory listing for each explosive type checked.</p>	<p>IV. Radiological Hazards</p> <p>Check Sum of Ratio</p> <p><input type="checkbox"/> <1 of RQ thresholds (40 CFR 302.4 Appendix B) <input type="checkbox"/> >1 of RQ thresholds < Cat. 3 Thresholds (DOE-STD-1027-92, Table A.1) <input type="checkbox"/> >Cat. 3 Thresholds (DOE-STD-1027-92, Table A.1) < Cat. 2 Thresholds (DOE-STD-1027-92, Table A.1)</p> <p>Does facility contain the following? Radiation Generating Devices: <input type="checkbox"/> Radiation generating devices not covered by DOE O 420.2A (e.g., X-rays, Electron Beams, Radiography Equipment): class _____ <input type="checkbox"/> Radiation generating devices covered by DOE O 420.2A (Accelerators).</p> <p>Exempted materials: <input type="checkbox"/> Radioactive Certified Sealed Sources <input type="checkbox"/> Rad. In Type B Containers with current certificates of compliance <input type="checkbox"/> Either in quantities > Cat. 3 thresholds (DOE-STD-1027-92, Table A.1)</p> <p>Attach listing of maximally planned radiological materials inventory.</p>

V. Industrial Hazards			
Check if hazard present	Industrial Hazard	Examples of industrial hazard(s) for each general category. (Select Industrial Hazards found.)	List industrial hazard(s) that could directly impact the public (fence-line) or colocated worker (100 m).
<input checked="" type="checkbox"/>	Electrical	<input type="checkbox"/> Battery banks, <input checked="" type="checkbox"/> Cable runs, <input checked="" type="checkbox"/> Diesel generators, <input checked="" type="checkbox"/> Electrical equipment, <input type="checkbox"/> Heaters, <input checked="" type="checkbox"/> High voltage (> 600V), <input type="checkbox"/> Motors, <input checked="" type="checkbox"/> Power tools, <input checked="" type="checkbox"/> Pumps, <input type="checkbox"/> Service outlets, <input checked="" type="checkbox"/> Fittings, <input checked="" type="checkbox"/> Switchgear, <input checked="" type="checkbox"/> Transformers, <input checked="" type="checkbox"/> Capacitors, <input type="checkbox"/> Magnetic fields, <input type="checkbox"/> Transmission lines, <input checked="" type="checkbox"/> Wiring/underground wiring, <input type="checkbox"/> Other: _____	None
<input checked="" type="checkbox"/>	Thermal	<input checked="" type="checkbox"/> Boilers, <input type="checkbox"/> Bunsen burner/hot plates, <input checked="" type="checkbox"/> Electrical equipment, <input checked="" type="checkbox"/> Electrical wiring, <input type="checkbox"/> Engine exhaust, <input type="checkbox"/> Furnaces, <input type="checkbox"/> Heaters, <input type="checkbox"/> Lasers, <input type="checkbox"/> Steam lines, <input type="checkbox"/> Welding surfaces, <input type="checkbox"/> Welding torch, <input type="checkbox"/> other: _____	None
<input checked="" type="checkbox"/>	Kinetic	<input checked="" type="checkbox"/> Acceleration/deceleration, <input checked="" type="checkbox"/> Bearings, <input checked="" type="checkbox"/> Belts, <input checked="" type="checkbox"/> Carts/dollies, <input type="checkbox"/> Centrifuges, <input type="checkbox"/> Crane loads (in motion), <input type="checkbox"/> Drills, <input checked="" type="checkbox"/> Fans, <input type="checkbox"/> Firearm Discharge, <input type="checkbox"/> Fork lifts, <input type="checkbox"/> Gears, <input type="checkbox"/> Grinders, <input checked="" type="checkbox"/> Motors, <input checked="" type="checkbox"/> Power tools, <input type="checkbox"/> Presses/shears, <input checked="" type="checkbox"/> Saws, <input type="checkbox"/> Vehicles, <input type="checkbox"/> Airplane, <input checked="" type="checkbox"/> Vibration, <input type="checkbox"/> Other: _____	None
<input checked="" type="checkbox"/>	Potential (pressure)	<input type="checkbox"/> Autoclaves, <input checked="" type="checkbox"/> Boilers, <input checked="" type="checkbox"/> Coiled springs, <input type="checkbox"/> Furnaces, <input checked="" type="checkbox"/> Gas bottles, <input type="checkbox"/> Gas receivers, <input checked="" type="checkbox"/> Pressure vessels, <input type="checkbox"/> Vacuum vessels, <input checked="" type="checkbox"/> Pressurized system (e.g., air), <input type="checkbox"/> Steam header and lines, <input type="checkbox"/> Stressed members, <input type="checkbox"/> Other: _____	None
<input checked="" type="checkbox"/>	Potential (height/mass)	<input type="checkbox"/> Cranes/hoists, <input type="checkbox"/> Elevated doors, <input checked="" type="checkbox"/> Elevated work surfaces, <input type="checkbox"/> Elevators, <input type="checkbox"/> Lifts, <input type="checkbox"/> Loading docks, <input checked="" type="checkbox"/> Mezzanines, <input type="checkbox"/> Floor pits, <input checked="" type="checkbox"/> Scaffolds and ladders, <input type="checkbox"/> Stacked material, <input type="checkbox"/> Stairs, <input type="checkbox"/> Other: _____	None
<input checked="" type="checkbox"/>	Internal Flooding Sources	<input checked="" type="checkbox"/> Domestic water, <input checked="" type="checkbox"/> Fire suppression piping, <input checked="" type="checkbox"/> Process water, <input type="checkbox"/> Other: _____	None
Hazard Classification			
Select the appropriate hazard level from the dropdown menu:			
Biological		Not found	
Chemical		LSI	
Explosive		Not found	
Radiological materials		Not found	
Radiation generators		Not found	
Industrial		LSI	

Controls for LSI classified facilities: (Low, Moderate and High facility controls are addressed in Tier 2 or Tier 3 SBDs.)

Briefly describe controls developed to assure that facility operations do not exceed the facility classification:

Use of chemicals shall be approved by facility management prior to introduction/use in the building. Signage will be placed on entrances to the building to notify personnel.

Facility management controls industrial hazards within the facility through work scope and PE maintenance review. Common industrial hazards are adequately covered by OSHA regulations. Controls for hazards such as electrical and pressure are described in the *LLNL ES&H Manual* Volume II, Part 16 and Part 18.

Other controls?

Briefly describe:

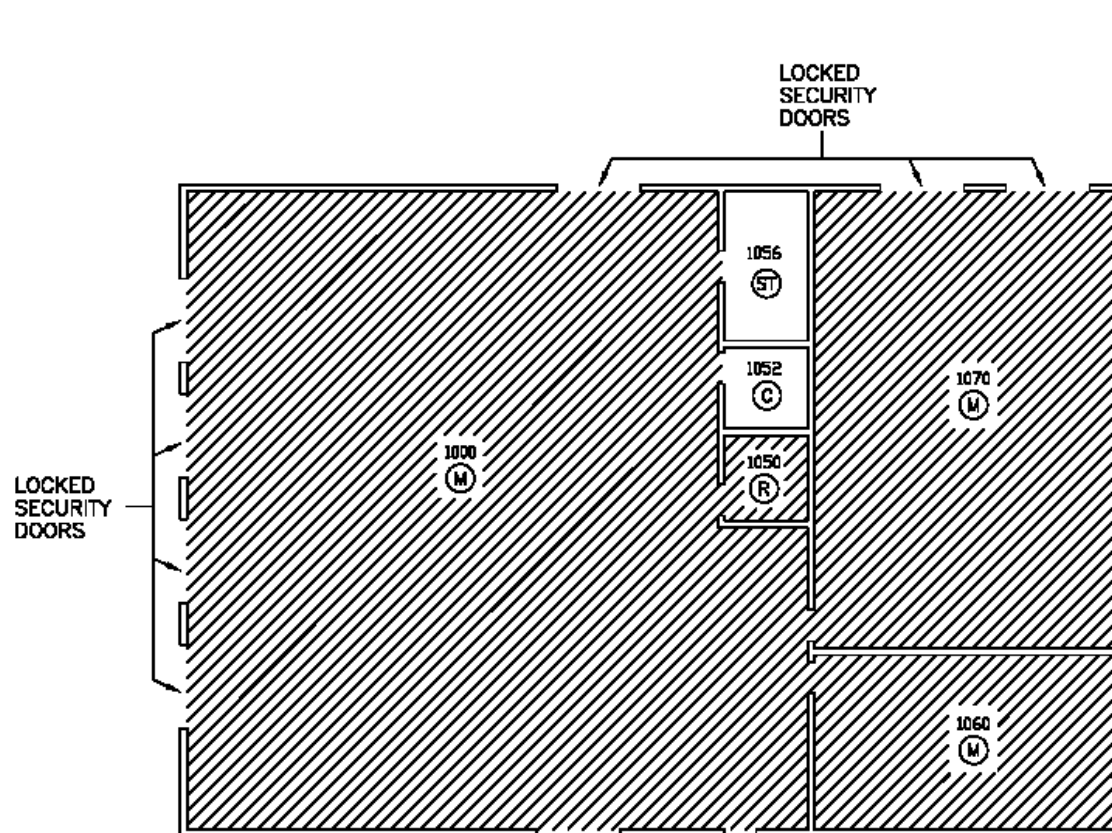
Entry into area will be limited to personnel placed on TESA access and to those with specific keys.

List what document(s) through which the controls will be implemented:

LLNL ES&H Manual.

Integration Worksheets

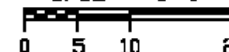
S:\VOP\pdd\133-1.DWG, 5/1/2006 2:28:08 PM, Adobe KPDF.pc3,
for keyplan updates, send markups to W. Wong @ MS L-654.



NOTE:
ROOM DESIGNATIONS FOR CORRIDORS, STAIRWAYS
AND NON-BUILDING SPACE ARE FOR
CROSSREFERENCE TO AREA SHEETS ONLY.



3/32" = 1'-0"



REV	DESCRIPTION	DATE	DWN	APPR
A	FIX SP. TYPE	3/87	KLS	

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Lawrence Livermore
National Laboratory
Livermore CA 94550

PLANT ENGINEERING

FACILITY KEYPLAN

LIMITED

PKB1996-133-001BA

BUILDING 133

Facility Name: CENTRAL PLANT/DPRF/NTTC