

## State Generator Information

State	Contact	Generator Specifications (If Provided)	What is Powered	Comments & Additional Information
State of Alaska Division of Public Health Department of Health and Social Services 5455 Dr Martin Luther King Jr. Ave. Anchorage, AK 99507	Bernd Jilly, Ph.D., MT (ASCP), HCLD(ABB) Laboratory Director Chief, Section of Laboratories Voice: 907.334.2109 Fax: 907-334-2161 Mobile: 907-862-2649 bernard.jilly@alaska.gov	Enough fuel for 1 week of operation.	This generator powers the entire building. Our boilers are also dual fuel: natural gas as default, and diesel for backup. Again, enough fuel for 1 week.	Shares a backup generator with State Troopers.
Colorado Department of Public Health and Environment 8100 Lowry Blvd. Denver, CO 80230	David A. Butcher, MBA,MT(ASCP)SM, Director 303.692.3069 david.butcher@state.co.us	Diesel generator with a 20 hour fuel tank that is "loaded" to 75% capacity	walk-in refrigerator, computer, telephone room, select laboratory circuits for lighting, critical analyzers, computer terminals, incubators etc.	Not everything but a fair representation. I tried to ensure that we had capability for NBS, and other core testing capabilities in an emergency No set criteria were used, just discussions with supervisors and facility operations staff.
Nebraska Public Health Laboratory	Steve "Hinrichs, Steven H" <shinrich@unmc.edu>		We have a backup diesel generator on a truck that we can bring in beside our building and have a high capacity cable connection into our electrical system. Since it is redundant to the emergency or non- interruptible power, the approach allows us to use the same outlets etc so all our equipment remains on line.	
Division of Consolidated Laboratory Services 600 North 5th Street Richmond, VA 23219	Dr. Tom York, Director Phone: (804)648-4480 x151	Two 2000 KW diesel generators as back- up to our facility power systems.	These generators can provide emergency power support for the entire facility and all equipment currently housed within the facility. With our existing diesel fuel storage capacity these generators can run for up to 36 hours. Both generators are programmed to activate automatically "sync up" with building facilities within 5-7 sec. UPS have been installed on critical equipment to insure uninterrupted power over the 5- 7 time delay.	
Rhode Island State Health Laboratories	Ewa King, PH.D. Associate Director of Health	260 kW generator with a 5,000 gallon tank, enough for 2-3 days of operation; 150 kW generator (BSL-3 only)- for 4 days of continuing operation	The generator powers emergency lighting (mostly in hallways). Most freezers & refrigerators, incubators can be powered by the generator or "emergency power". No testing equipment generally plugged in.	Many critical systems such as HVAC, laboratory grade water supply, etc. not included.

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<p>Connecticut Department of Public Health 395 West Street Rocky Hill, CT 06067</p>	<p>Gregg Herriford Section Chief, Administration and Scientific Support Services Dr. Katherine A. Kelley State Public Health Laboratory Telephone: 860-920-6505 Fax: 860-920-6718</p>	<p>We have a Diesel storage sufficient for 24 hours of operation of the standby power system.</p>	<p>Lab Exhaust, including and Continual Operation of the BSL-3 HVAC System Protective Storage Systems including Environmental Chambers, Laboratory Refrigeration Equipment, including Deli and Closed Cooling Cabinets, Minus-80 Freezers and critically functioning laboratory equipment. In addition, we have a 100kVA/80kW UPS, primarily dedicated to the continual operation of data-management devices including, Building Automation system, critically functioning laboratory equipment and select tel/data and server equipment. Our primary intent is to protect lab spaces , BSL-3 spaces and critical samples/supplies that require controlled temperatures. The laboratory's heating system has duel fuel boilers that normally run on natural gas but can be run on Diesel fuel. We have a 3 day supply of Diesel on site to maintain building temperature in inclement weather.</p>	
<p>Minnesota Department of Health Public Health Laboratory</p>	<p>Joanne Bartkus, PhD Director  office: 651-201-5256 mobile: 651-303-6229 fax: 651-201-5064 e-mail: joanne.bartkus@state.mn.us</p>		<p>Currently, our generator only powers essential systems, in particular those associated with fire and life safety. Most of our critical equipment and all freezers and refrigerators and half of our air handlers are on backup power. Other items appear to have been chosen randomly. For example, the autoclave is on backup power, but the boiler for steam is not. Our DI water, clean compressed air, and vacuum systems are also not on backup.</p>	<p>Minnesota received funding in the last legislative session to put the entire lab on backup power. We are planning to tie the lab generator with the generator for the Freeman building, which houses our epidemiologists and which has excess capacity. We are also adding a termination junction box that will enable us to connect to an external generator in the event that the lab and Freeman generators fail. This will also allow us to do preventive maintenance of the electrical system without interfering with critical lab functions.</p>

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<p>New Hampshire Division of Public Health Services, Department of Health and Human Services 29 Hazen Drive Concord, NH 03301- 6504</p>	<p>Daniel Tullo, MS Microbiology Program Manager Bureau of Public Health Laboratories Phone: 603-271-4658 Fax: 603-271-4760 Email: dtullo@dhhs.state.nh.us</p>	<p>We have a large diesel generator with a 4,800 gallon capacity that can run for 86 hours. We have a standing contract with a local vendor to keep the tank full.</p>	<p>The generator has a large enough output to run most of our equipment. We have three types of outlets; regular power which does not have power during a power outage (non essential equipment). emergency power which will have power (equipment without computers or integrated circuits), uninterrupted emergency power these outlets have a battery backup that will maintain power during the 1-3 second delay from loss of city power to the start up and running of the generator. We put all our equipment that has attached computers such as all the chemistry analyzers, PCR instruments, etc. on these outlets. The 10 big HVAC fans on the roof will not be running on full power they are ramped down usually only 3 still running (one for each wing of the lab), the BSL-3 labs maintain negative pressure (a test required by the select agent rule) and the building also maintains airflow but not at optimal levels. So we have techs evaluate what they are doing in the BSL-3's (risk assessment) and either shut down activities (usually the choice with select agents) or increase personal protection based on this evaluation.</p>	
<p>Washington State Public Health Laboratories 1610 NE 150th St Shoreline, WA 98155- 7224 Phone (206) 418-5450 FAX (206) 418-5445</p>	<p>Romesh Gautam, Ph.D. Director, Affiliate Professor, School of Public Health, University of Washington</p>	<p>One-1250 KW generator that starts within seven seconds of utility power shutdown and is running at full speed in approximately 30 seconds. The current fuel tank will allow the generator to run for three days without refueling. The new tank we will be installing in November is 5000 gal. and will allow the generator to run for a week at full power.</p>	<p>The generator is large enough to power the whole lab when activated. We have a 15 minute UPS supply on all critical building systems such as the Building Automation System, Fire Alarm system, and IT servers. We also have 15 minute UPS supply on all essential lab equipment such as our mass specs etc.</p>	
<p>SD Public Health Laboratory</p>	<p>Mike Smith &lt;Mike.Smith@state.sd.us&gt;</p>	<p>Diesel powered 350 KW generator. It will operate for 24+ hours without refueling.</p>	<p>The generator powers the HVAC system, emergency lighting, incubators, freezers, refrigerators, fume hoods, and BSCs. There are a few electrical outlets throughout the building that are on emergency power that can be used if needed. The generator is tested monthly. Basically the generator powers that equipment needed to protect our samples and for life safety.</p>	

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Arizona State PHL	Victor Waddell <Victor.Waddell@azdhs.gov>	750 kW Diesel generator with a fuel tank which will last approximately 24hrs at 50-75% capacity.	We have our air handling system on the emergency power, refrigerators, freezers, incubators, lighting, building management system along with multiple instruments such as newborn screening equipment (with point UPS), biosafety cabinets, fume hoods, class III glove box, LIMS. We do not currently have any of our chillers on emergency power (as originally there was not enough capacity) so we have scaled back our energy uses on the building since then so we believe we have enough capacity now to add one chiller to the generator (and thus keep our building cooler in the summer).	We have a contract with a vendor who can supply diesel within a specified timeframe. In addition to our generator we have two independent power supplies to the lab so we can change feeders if there are problems.
MO Dept. of Health	Whitmar, Bill Bill.Whitmar@health.mo.gov	Two 900 kW generators that provide emergency power to approximately 65% of the SPHL	NBS,BT and CT, Emergency Response Unit All freezers/refrigerators for reagents and critical specimens, Walk-ins, Select labs in micro, viro, env. Bacteriology Conference rooms that have been designated as COOP spaces for our Department- environmental (air handling, chillers, boilers, etc) are also on the emergency power too.	There is 24 hr capacity in the tanks.
Michigan Department of Community Health, 3350 N. MLK Jr. Blvd., Lansing, MI 48909-0035	Sandip Shah, Ph.D., M.Sc., HCLD(ABB) State Public Health Laboratory Director, Acting Bureau Administrator Bureau of Laboratories, Phone: (517)335-8063 Fax: (517)335-8051	Michigan SPHL is connected to an automatic diesel power generator and is a part of our COOP. It has sufficient capacity to power our entire building for 3 days non-stop.	We try to lower down the load by powering off non-essential equipment and lighting during power outages. This has worked for us for many years now, except a couple of times when we had lightening strikes resulting in switch gear explosions and resulting failures, but no significant losses to account for. To make the system even better (full proof), we are currently working with our energy company and installing a secondary power feed (coming from a different supply location) to the entire complex with auto switch gears. This will be a high capacity feed and will automatically take over during main line failure. If both feeds fail (very unlikely) then the generator will take over as the third back up.	It is continuously maintained in a state of readiness at all times and is tested quarterly under our building maintenance plan.
Hawaii Department of Health 2725 Waimano Home Road Pearl City, HI 96782	A. Christian Whelen, Ph.D., (D)ABMM Chief, State Laboratories Division 808 453-6652; FAX -6662 chris.whelen@doh.hawaii.gov	1500 KW diesel generator that has about a 3 day capacity for current load	Excludes running the much of the HVAC. This is due to some curious omissions. For example, the intake and exhaust fans may be on emergency power, but the compressor that powers the phoenix valves that control air balance is not. Also, we have 1 of 3 chillers on emergency power, so if that one is down for maintenance or repair - so is the AC. Like MN, we also have a request in to put the building on emergency power, but unclear how that will shake out at this point.	

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Louisiana Office of Public Health Laboratories 3101 West Napoleon Avenue Metairie Louisiana 70001	Stephen J. Martin, Ph.D. Director, Office 504-219-4664 Cell 225-329-8169 Fax 504-219-4670 Email <a href="mailto:stephen.martin@la.gov">stephen.martin@la.gov</a> OPH Laboratories 24/7 Emergency Number 504-458- 9537		We are now moving towards diesel generators with sufficient capacity to power the entire building for at least 24 hours without re-fueling. During hurricane Isaac this fall our BSL-3 laboratory in Metairie ran on a back-up generator for 5 days before power was restored. Having our NBS reagents protected allowed us to restart NBS testing as soon as staff could return to the area. The lab facility we are building in Baton Rouge is designed to have enough back-up diesel generation capacity to run the entire facility at normal electrical load. We will have four generators; as long as any three of them run we will have full capacity. Using multiple smaller generators gives us some built-in redundancy that relying on a single large generator would not offer.	In Louisiana we have changed our requirements for back-up generators over the last few years. Prior to 2005 many state facilities including the public health laboratories were equipped with small back-up generators that ran on natural gas. These generators ran the “essential” equipment such as refrigerators, freezers and computer servers and not the HVAC systems or the analytical equipment. Because of the heat and humidity in Louisiana powering a freezer inside a building without air conditioning causes the freezers to fail frequently. A -80C freezer is not designed to run for days in an unventilated room at 35-40C. We also have found that damage to structures during hurricanes often leads to large natural gas leaks which can cause widespread outages or low pressure situations.

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Indiana State Department of Health Indianapolis, IN 46202 1-317-921-5808	Judith C. Lovchik, PhD, D(ABMM) Assistant Commissioner Laboratory Services	1500 KW generator able to take a load within seven seconds of commercial power failure. This is done by means of an automatic transfer switch (ATS). The generator has a 2500 gallon diesel fuel tank, which has a run time of 27.5 hours under "full load". Our generator generally would run at 80% of full load, so we expect on board fuel to last 40 hours.	<p>The state has agreements with vendors to provide fuel should we need it. In the rare occurrence that these vendors would not be available, we would reach out to the State's Homeland Security, who would order a National Guard truck to be dispatched. The generator powers Mission Essential Functions equipment in the lab only, as the lab is not 100% on the emergency circuits. This means red plugged bench top equipment, Select Agent Labs, designated biosafety cabinets and chemical fume hoods. Building systems on the generator include (not a comprehensive listing) emergency lighting, one elevator, the Select Agent areas, building exhaust system, emergency lighting systems, emergency life safety code/security systems, and a large UPS put in place to "carry" the seven second start up time to ensure the Select Agent labs stayed negative or neutral to the outside space. The run time on the large UPS is approximately 90 minutes.</p> <p>In addition to the above, ISDH through preparedness funds did install a manual transfer switch in order that a portable generator (truck mounted) could be in put in place to run the emergency circuits of the building should the 1500 KW stationary generator become non-opertive. a portable unit would be put in place anytime two sources of building power would not e available for periods extending more than 5 hours.</p>	