



OPERATIONS - BUILDINGS

ENVIRONMENTAL GUIDELINE



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PURPOSE

The purpose of the guideline is to define DEN's expectations for the environmentally conscious operation of buildings. Airport buildings require significant resources to operate efficiently, effectively, and safely. There are steps all building operators should take to minimize the impacts of fuel use, energy use, and waste. DEN expects business partners to minimize emissions and waste from building operations and maintenance in support of its voluntary GHG reduction commitment and goal to be the greenest airport in the world.

ACTIVITY DEFINITION

Proper building operation requires the building owner to oversee day-to-day and long term fulfillment of the building's purpose. Buildings may be used for airport operations, storage, vehicle and aircraft maintenance, heat and hot water production, firefighting, and many others. It is particularly important to address fossil fuel and electricity use in these spaces. Attention to efficient use of fuel and energy results in GHG reductions, along with other benefits to human health.

EXPECTATIONS

Best Practices:

- Energy Efficiency:
 - Ensure buildings conform to DEN's long term energy goals
 - Replace or optimize building control systems
 - Utilize high-efficiency electric equipment, hardware, and lighting
 - Utilize VFDs on equipment such as chilled water pumps, heating water pump fans, motors, chillers
 - Use electric/hybrid ground support equipment (GSE).
- Electrify relevant equipment whenever possible
- Renewable Energy:
 - If purchasing electricity, enroll in renewable energy purchasing programs
 - Purchase renewable natural gas (RNG) for relevant applications
 - Install solar, battery storage solutions and microgrid
- Power Management:
 - Turn off equipment when not in use, daily
 - Install occupancy sensors in infrequently used areas



- Retrofits:
 - Upgrade lighting to LED and use lighting controls to such as motions sensors timers.
 - Heating retrofits should utilize high-efficiency natural gas burners
 - Upgrade any pneumatic controls to DDC
- Heat and Energy Recovery
 - Install heat exchangers whenever possible in hydronic loops.
 - Reuse waste heat from boilers, chillers, AHU.
 - Implement centralized heating and cooling for terminals and nearby facilities.
- Smart Mobility and Electrification
 - Expand EV charging stations for passengers and staff.
 - Transition airside fleets to electric.
 - Partner with airlines to promote Sustainable Aviation Fuels (SAF).
 - Install EV charging stations for Ground Support Equipment
- All buildings should have recycling and landfill at minimum, and compost if the facility generates food waste.
 - Operators should aim to maximize waste diversion through employee education, signage, and ease of use.
 - Please reference the “General Waste Management” Environmental Guidelines
- Buildings should collect and properly dispose of hazardous and universal waste, including batteries, aerosols, light bulbs, and electronic devices.
 - Please reference the “Management of Wastes” Environmental Guidelines, including Hazardous, Special, and Universal
- Prioritize waste reduction and reuse before recycling and landfill disposal
- Maintenance and Inspections:
 - Buildings should be regularly inspected for infrastructure that may fail or is in danger of wearing out (e.g. water pipes, gas lines, electrical wiring, roofs and windows)
 - Repairs should be carried out quickly and in line with other environmental guidelines

Shall Not:

- Use backup or emergency natural gas or diesel generators for primary power without the approval of Environmental Services.



REFERENCES

Contacts

- DEN Environmental Services (Main Line): 303-342-2730; DENEnvironmental@flydenver.com

Additional Resources

- Rule & Regulation 180
- Energize Denver Building Performance Policy