

Yaskawa America, Inc. — Buffalo Grove, IL

**Facilities:**

- **1067 Johnson Drive:** Engineering, Supply Chain Management, Variable Frequency Drive (VFD) Assembly, Servo Motor Assembly, Warehouse.
- **1065 Johnson Drive:** Primarily Warehouse with small VFD Assembly area.

**Date:** August 27, 2025

**Prepared by:** EHS / Risk Mitigation Manager

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### 1. Activities & Processes

- **Assembly:** Mechanical fastening (screws, bolts), wiring of pre-fabricated harnesses, limited adhesive use in servo motors.
  - **Materials handling:** Receiving, storage, packaging, shipping.
  - **Equipment:** Electric forklifts, pallet jacks, powered hand tools, testing equipment.
  - **Support:** Engineering and office functions.
  - **Utilities:** Electricity (lighting, HVAC, tools), natural gas (space heating).
  - **Waste:** General trash, recyclables (cardboard, plastics, scrap metal, e-waste), limited hazardous waste (adhesives, cleaning chemicals).
  - **Water use/discharge:** Bathrooms, janitorial cleaning.
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### 2. Environmental Aspects, Impacts, and Risk Ratings

## Environmental Risk Assessment

Aspect / Source	Potential Environmental Impact	Likelihood (1–5)	Severity (1–5)	Risk Rating (LxS)	Existing Controls	Residual Risk
<b>Electricity consumption (tools, lights, HVAC, equipment)</b>	Indirect GHG emissions (Scope 2)	4	3	12 (Med)	Energy-efficient lighting, equipment shutdown policies, Yaskawa Group energy-reduction goals	Low-Med
<b>Natural gas for heating</b>	GHG emissions (Scope 1 CO <sub>2</sub> )	3	3	9 (Med)	Preventive maintenance on heaters, programmable thermostats	Low-Med
<b>Electric forklifts / charging</b>	Electricity demand, battery disposal (long-term)	2	3	6 (Low-Med)	Electric fleet (no combustion emissions), vendor-managed battery recycling	Low
<b>Assembly adhesives (small quantity)</b>	VOC emissions, chemical waste if improperly disposed	1	2	2 (Low)	Minimal use, SDS compliance, waste disposed via approved channels	Very Low
<b>Wiring / fasteners assembly</b>	Scrap wire/metal waste	3	2	6 (Low-Med)	Scrap recycled, containers provided	Low
<b>Packaging &amp; warehouse operations</b>	Solid waste generation (cardboard, plastics, pallets)	4	2	8 (Med)	Cardboard recycling, pallet reuse/return, waste contractor	Low-Med
<b>Electronic waste (obsolete parts, boards)</b>	Improper disposal could cause heavy metal contamination	2	4	8 (Med)	Managed through certified e-waste recycler	Low
<b>Cleaning chemicals / janitorial supplies</b>	Chemical discharge to sanitary sewer if misused	2	3	6 (Low-Med)	Use of non-hazardous cleaners, SDS available, custodial training	Low
<b>Bathroom wastewater</b>	Sanitary discharge to municipal system	4	2	8 (Med)	Standard municipal treatment, no industrial effluent	Low
<b>Stormwater runoff</b>	Potential contamination from outdoor material handling	2	3	6 (Low-Med)	Minimal outdoor material storage, paved parking only, storm drains maintained	Low
<b>Emergency spill (e.g., forklift battery acid, chemical container)</b>	Soil/water contamination, potential regulatory breach	1	4	4 (Low)	Spill kits available, trained associates, vendor support	Very Low

### 3. Evaluation Summary

- **Highest material impacts:**
  - Electricity and natural gas consumption (energy/GHG).
  - Packaging and warehouse solid waste streams.
  - E-waste management.
- **Low to negligible impacts:**
  - Adhesives use in assembly.
  - Sanitary wastewater.
  - Cleaning chemicals (low hazard).

Overall environmental risk profile is **Low to Medium**, with **no high-risk aspects** identified given current operations and controls.

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### 4. Mitigation & Improvement Opportunities

#### 1. Energy & Climate

- Continue energy efficiency upgrades (LED, VFDs on HVAC).
- Track energy consumption and CO<sub>2</sub> emissions; report under Yaskawa Group ESG framework.

#### 2. Waste & Recycling

- Expand recycling of plastics and metals.
- Increase supplier returnable packaging.
- Track waste metrics annually.

#### 3. Water

- Maintain low consumption; consider low-flow fixtures.
- Review janitorial chemical inventory for “green cleaning” opportunities.

#### 4. Supply Chain

- Communicate Yaskawa Procurement Guidelines (restricted substances, RoHS/REACH).
- Evaluate supplier packaging reduction initiatives.

#### 5. Emergency Preparedness

- Refresh spill response drills for forklift batteries/chemicals.

- Maintain spill kits and PPE in warehouse/assembly areas.

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### 5. Conclusion

The Buffalo Grove facilities have a **low environmental risk profile** due to the nature of operations (light assembly, electric vehicles, limited hazardous materials). The most significant impacts relate to **energy consumption and solid waste generation**, which are already mitigated by recycling, energy-efficient infrastructure, and Yaskawa Group environmental initiatives.

This ERA will be reviewed **annually or after significant operational changes** in accordance with Yaskawa's Environmental Policy located at [www.YaskawaSafety.com/policies](http://www.YaskawaSafety.com/policies).