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## 4 Requirements of a Semiconductor Facility

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A semiconductor facility has a lot of moving parts. From the equipment to the people managing it, a lot of things need to happen correctly to operate effectively. Here are four must-have items that should be in place at your facility.

### 1) Asset and inventory control measures

As you know, the equipment and inventory needed to produce semiconductors are expensive, really expensive. That's why it's essential to have asset control systems in place to get a good handle on production expectations. [Barcode tracking](#) is a cost-effective way to manage your inventory, whereas [RFID](#) is the ideal choice because of the ease of use and reliability in communicating relevant information. You can learn about the [difference between barcode and RFID](#) here.

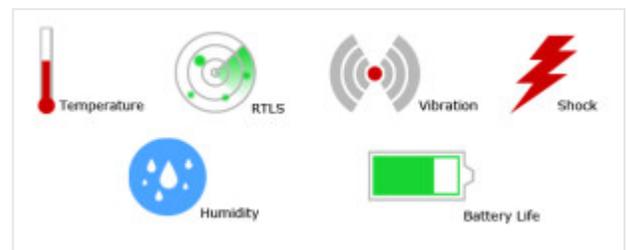
In addition to larger assets, your facility likely uses smaller (yet expensive) equipment such as tablets, tools, and devices. To protect these devices from potential theft or damage, it's important to have an [automated locker system](#) in place as well.

## 2) Safety and evacuation procedures

Site emergencies are something none of us want to think about, but it's important to have a well-documented plan as it can save lives during a catastrophe. Standard safety procedures should include regular training for employees, marked fire exits, mapped routes, and mustering locations (safe zones) for employees to gather. In addition to standard procedures, [RFID emergency management](#) technology can play a key role in emergency management through key fobs and sensors. These devices allow emergency personnel to see real-time information during an emergency to see which employees are safe, and which ones may be missing.

## 3) Real-time monitoring, sensing, and alert notifications

Clean rooms in a fab should be free of dust and vibrations, and the temperature and humidity levels are important to the production process. [Monitoring and alerts with RFID](#) sensors can be placed on and around equipment to provide 24/7 alerts for things such as temperature, humidity, shock, and vibration. Wireless sensor tags can be programmed to alert the proper personnel when certain predetermined thresholds are met.



## 4) Site access for employees

On a typical day, a semiconductor facility likely sees thousands of employees, contractors, and visitors walking through the doors. Semiconductor facilities should be highly secure, and access control locks should be on every single door or gate of your building. Most access control systems consist of [ID cards with built-in technology](#) and are managed by on-site security. Ideally, access control for your facility should be specific to each person, which would prevent someone from accessing a restricted area or entering the building during off-hours.

**If you need help implementing any of these solutions in your semiconductor facility or you'd like to learn more, please fill out the form below to access our free guide.**