1.0 Purpose of Procedure

This document describes the key infrastructure at Product Resources.

2.0 Scope of Process

Product Resources shall determine, provide, and maintain the infrastructure needed for its single site at 4 Mulliken Way for the scope of Product Resources' operations as defined in 91-9001, Context of Organization..

3.0 Process Owner(s)

3.1 Management

3.2 Manufacturing Manager

3.3 Quality

4.0 Procedure

4.1 Infrastructure Items

4.1.1 Building and Utilities

- Product Resources is a single location at 4 Mulliken Way, Newburyport, Massachusetts. It is a 33,000 total square foot building made up of office, meeting, production, testing, service, engineering lab, and warehouse space with approximately 21,000 square feet currently used by Product Resources with room for expansion. Multiple loading docks are available for shipping and receiving. The building is served by utilities for water, sewage, electricity, natural gas, and tele-/data-communications. Internal wiring infrastructure is in place for data and voice communications. The electric utility is sized to meet the requirements for Product Resources' products and services, i.e., industrial power. The building is protected by fire alarm, sprinkler, security alarm, and door entry systems. Certain interior doors (stockroom, network and server room, Accounting, Human Resources) are protected by security codes and/or locks.

- Clean and dry compressed air is available and distributed to Production, Test, Service, and Engineering spaces.

- A thermal burn-in room is available for elevated temperature burn-in. Roof space is available for communications devices required for the production and testing of certain products.

4.1.2 Process Equipment (both hardware and software)

- A thermal chamber is available for heating and cooling to facilitate certain testing and design and development verification tasks.

- Automated wire preparation and termination machinery is available. Encapsulation (potting) equipment is available. Dedicated label software and label printers are available.

- Positive flow benches are available for clean assembly.

- The ERP system Infor ERP SL (SyteLine) and QMS qystem QT9 QMS are in place locally as well as a local network of PC servers and workstations and network appliances.

- Local server types and server and application software programs are in use as is necessary to support business operations.

- Data backup of local servers is described in 43-4530, Data Backup Plan. The data security policy is stated in 43-4393, Data Security Policy. All servers have fault-tolerant disk storage and uninterruptible power supply (UPS) systems with organized shutdown in the case of sustained power failure. Refer also to 43-2151, Electronic Data Protection Procedure. A backup server providing redundancy for certain functions (messaging, DNS) is a private cloud server. Cloud services are used for certain functions (the remote destination for backed up data and backup management console, anti-virus management console).

- Firewall appliances exist between LAN and WAN, with VPN capability.

4.1.3 Supporting Services (such as transport and communication)

- Product Resources uses common carriers for the transport of product.

- The facility is served by a IP-PBX phone system, which is in turn served by VOIP-delivered trunks and an analog trunk and a cellular-delivered trunk for backup. VOIP and Internet data communications are served by business class cable Internet as well as cellular data for backup.

4.2 Maintaining Infrastructure

4.2.1 Production infrastructure items that require preventive maintenance are identified by the Manufacturing Manager. Once identified they are entered in the QMS system using its preventive maintenance module. The normal time period between preventive maintenances is one year this can be altered based on usage and wear as needed. Quality Assurance facilitates initial entry in the QMS system, identification of when items have become due for preventive maintenance, and entry of evidence of the preventive maintenance having taken place. The Manufacturing Manager is responsible for having the preventive maintenance performed, whether by hired service personnel or performed internally.

Reference procedure 43-1350 for detailed instruction on the PM process.

4.2.2 The maintenance of company-owned IT instructure items is covered by the procedures referenced above.

5.0 Control of Records

The storage location and retention period for records referenced above are given in 91-6002, Control of Records.