

Building 4024 Groundwater Management Desk Instruction

This Desk Instruction describes the Building 4024 groundwater management process.

Scope

Building 4024 utilizes two manually controlled sump pumps (Figure 1) to manage groundwater entering below grade areas of the building, and the French drain system. Pumps are operated weekly, and more frequently following significant rainfall. Occasionally, groundwater may enter the test cells through floor penetrations requiring manual transfer to the gallery sump for removal. Water volume pumped from each sump is metered and recorded in the 4024 groundwater management notebook. Water from the sumps is sampled for on-site gamma spectroscopy analysis on a quarterly basis and results reported to management.

Safety

Building 4024 is an inactive building being maintained in a safe shutdown condition. All permanent facility utilities have been disconnected. Limited electrical service is provided through a temporary power system, located at the southwest corner of the high bay, and is used to operate portable lights, sump pumps, roll-up doors, and cranes. All personnel entering the building are required to wear hardhats and safety shoes and carry flashlights. Persons entering the facility alone are required to carry a Boeing 2-way radio and check in with a responsible person prior to entering the below grade area of the facility and again when leaving.

Instructions

1. Notify the facility HP of intent to pump water from sumps, floors, and storage tubes and assist with sample collection as required.
2. Enter the facility and turn on portable lights by closing the main power switch, located on the temporary power supply at the southwest corner of the high bay (Figure 1), and pressing the start button.
3. Verify radio contact, if alone, and enter the below grade area of the facility.
4. Inspect cell sumps, floors, and storage tubes for water. If water is present, transfer to the gallery sump for removal (Figure 2).
5. Operate both sump pumps (Figure 1) until all water has been removed.
6. Record total volume pumped in the 4024 groundwater management notebook.
7. Repeat steps 1 through 6 daily or, until sumps are emptied and floors are dry.

Approvals

Facility PIC _____

Radiation Safety _____

Site Closure Manager _____

Building 4024 High Bay Power, Lighting, and Pump Controls

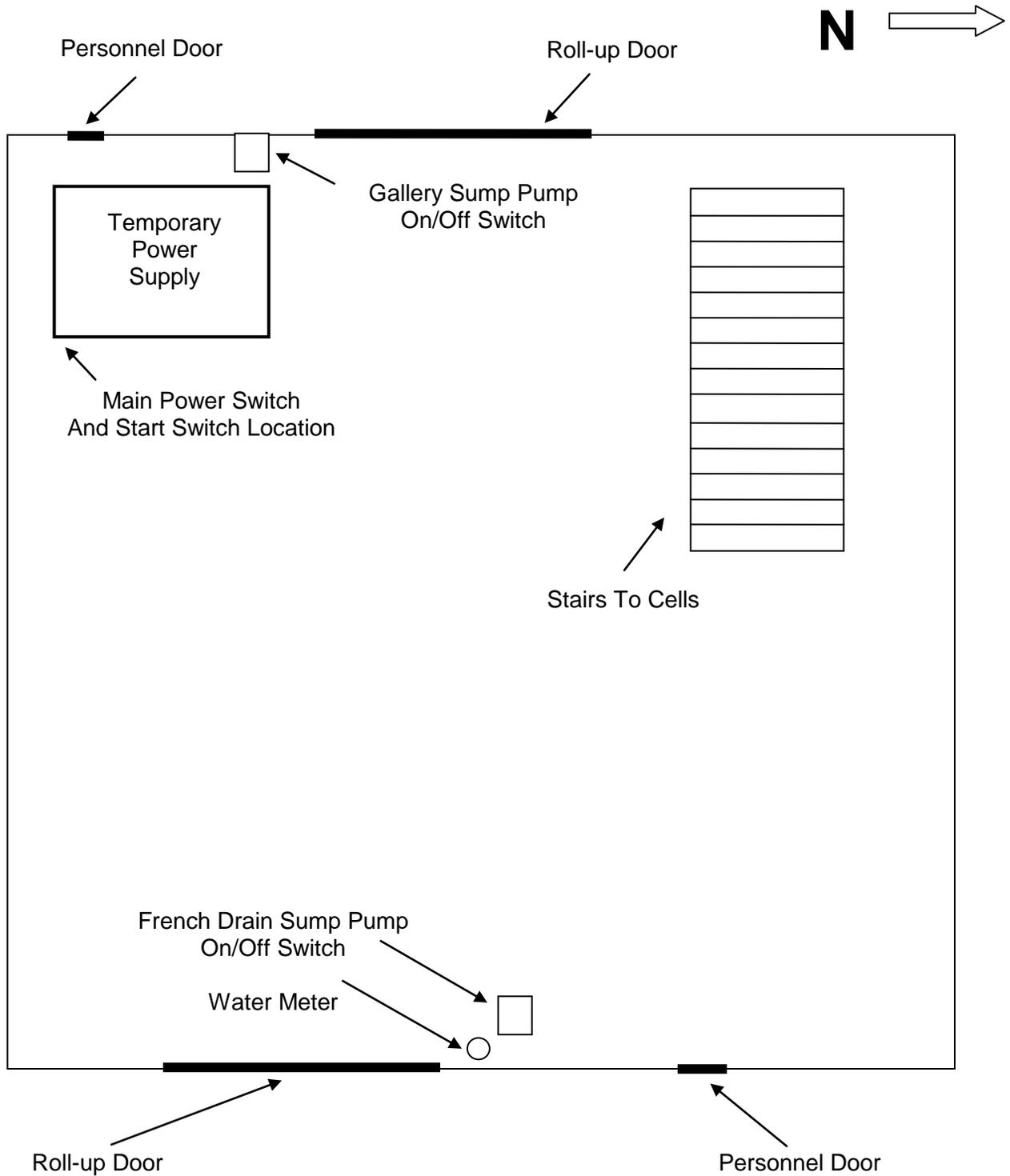


Figure 1

Building 4024 Test Cells and Gallery Sump Layout

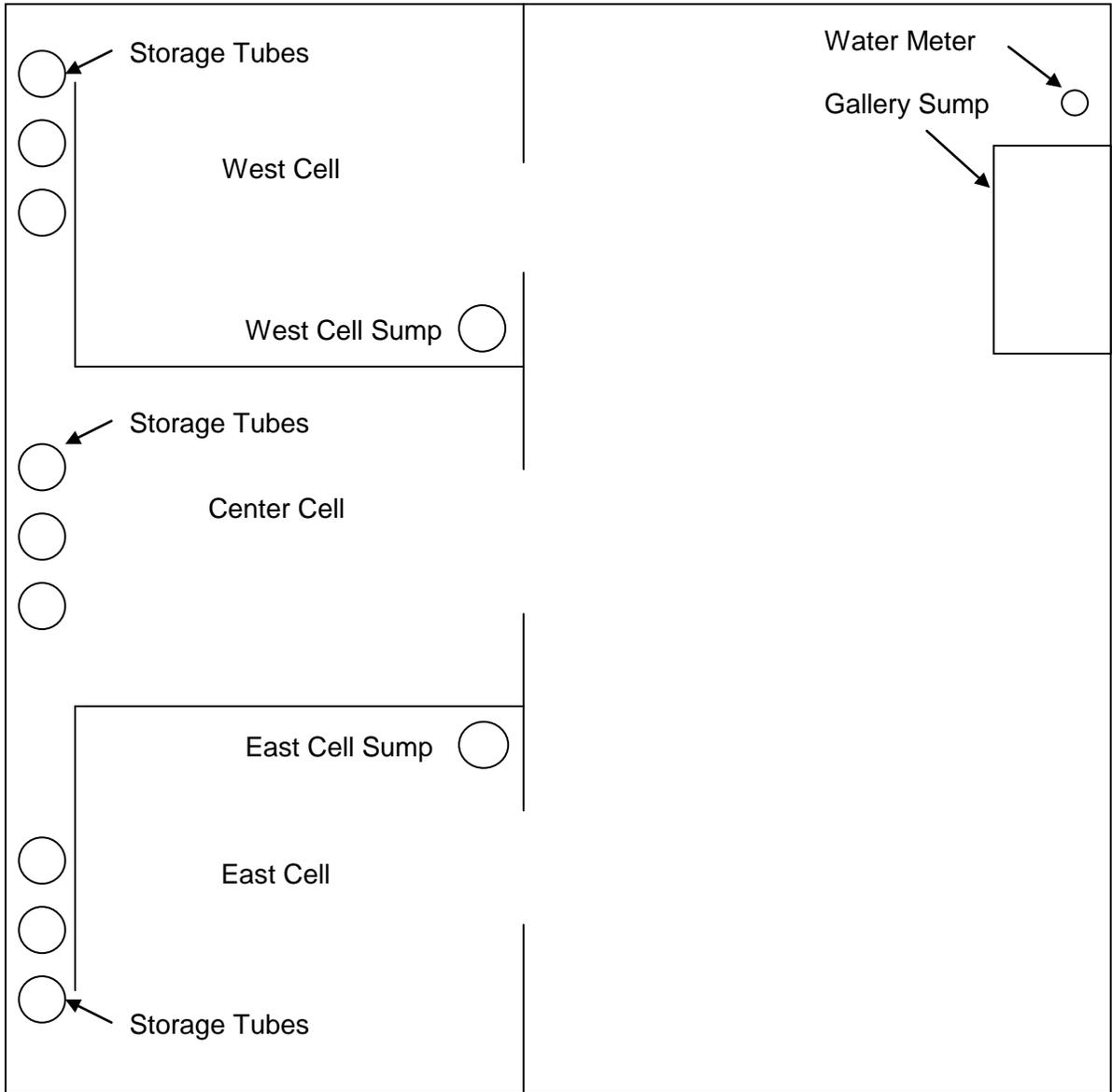
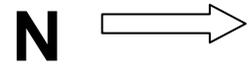


Figure 2