GOSP Control Room Simulator Trainer User Guide

This is a user guide for instructors who use a training simulator to teach control room operators how to maintain safe operating conditions at gas/oil separation plants. It simulates a Fisher ProVox Distributed Control System, and the instructor controls the simulation from a PC-based instructor console. The selection describes the procedure for starting the simulator from the instructor console.

Starting the Simulation from the Instructor Console

To start the DCS simulator, you need to start the simulator program from the instructor console by entering a simple command at the DOS prompt. Once the simulator program is started, you can use the simulator program menus and displays to control the simulation from the instructor console.

1. Enter the name of the simulation you want to run (e.g., `ugosp6` for the Udhaliyah GOSP-6 simulation, or `shed3` for the Shedgum GOSP-3 simulation) and press Enter (↵). The program begins to load and a series of program prompts appear.

2. `Fast Startup (Y/N)?`
    Answer `Y` if you want to start up the simulated GOSP with its vessels already filled. Answer `N` if you want them to fill at normal speed.[*]

After an ESD shutdown,

you can easily restart your simulation by clicking the ESD Restart button on the Alarms menu.

3. `ESD Enable (Y/N)?`
    Answer `Y` if you want to simulate the Emergency ShutDown alarm response that would be in effect at a working GOSP. Answer `N` if you want the simulated GOSP to continue to run even after normal emergency shutdown alarm settings have been reached.

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[*] Note: It may take the vessels as long as four hours to fill at normal speed.

4. **Print Shutdown Reports (Y/N)?**
   Answer **Y** if you want the program to record the plant
   conditions at the time of an emergency shutdown. This
   information will be stored in a file named **CRASH.TXT**. With
   this option enabled, each time an ESD occurs, plant condition
   information is appended to the **CRASH.TXT** file. If you answer
   N, no information will be appended to **CRASH.TXT**.

Stopping the Simulation

You can stop the simulation program at any time by pressing the Esc key on the
instructor console keyboard. There will be a brief pause after you press this key while
the simulator program warns the operator console that it is about to shut down.

Controlling the Simulation from the Instructor Console

Once the simulator program has been loaded, the Plant Overview display appears on the
instructor console screen. The Plant Overview provides a graphical representation of the
component parts of the simulated GOSP. The first of three function key menus appears
at the bottom of the Plant Overview display.

From the Plant Overview display, you have access to the displays that control each
component of the simulated GOSP and the function key menus that give access to the
special alarm and scenario menus. There are three ways to navigate through the
simulator program menu and display system: by clicking on a component with the
mouse, by pressing one of the function keys indicated in the function key menu, or by
clicking on the name of one of the function keys in the function key menu.

1. Click on a component
   To select a component display, use the mouse to position the cursor over the
   component you want, and then click the left mouse button.

2. Press a function key
   The menu at the bottom of the display lists function keys (e.g., F1, F2, F3) and their
   corresponding components (e.g., HPPT, LPPT, Boundary). To select a component
   display, find the number of the function key that corresponds to the component you
   want and press that key. The function keys are located along the top of the instructor
   console keyboard.

3. Click on a function key
   Rather than click directly on a component in the Plant Overview, you can also click
   on the name of that component in the function key menu at the bottom of the display
   screen.