ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS)

EMS System Administration Training



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Part One: Introduction

This training session will focus on the technical aspects of the EMS system. It is designed to provide Chemical Safety's EMS customers with an in-house resource- the system administrator. System administrators will learn how to set up facilities, buildings, locations, employees, and EMS users. This training will also focus on user permissions and general system settings.

Logging In to EMS

To log into the EMS system, open the following url in your browser:

https://nsam.chemicalsafety.com/

Click on the Log In link on the left side of your screen. Enter your user name and password and press enter on your keyboard (or click on the Log In button with your mouse.

EMS Database Structure

A database is a collection of information that often includes rapid search and retrieval capabilities. A "relational" database, like EMS, uses two or more databases that can be linked together for the search and retrieval of complex and detailed inquiries that utilize (related) information from these different databases. As you will see below, the location hierarchy, consisting of the **Facility** database, **Material Inventory** database, **MSDS** database, **Employee** database, and the **Chemical Reference** database, are connected so that the user can combine information and have total control of data management.

Location Hierarchy

The location hierarchy is the root of all EMS data. Since it involves mainly stable information (addresses, building numbers, etc.), it rarely needs to be updated. The facility hierarchy consists of the following databases:

- Facility: usually refers to the broadest description of the site of an organization, such as the name of the organization or one of its headquarters' locations. You can enter unlimited facilities, but at least one facility record must be created before you can enter any other location data. There are four facilities at NSAM:
 - NSAM Main BASE
 - NSAM NAVY Annex
 - NSAM La Mesa Village
 - Camp Roberts

Chemical Inventory Regulatory Reporting is Prepared and submitted to the California Electronic Reporting System (CERS) by facility.

- **Building:** refers to an actual physical building where materials are utilized and stored. A facility record must exist in order to create building record. At NSAM, all buildings have been listed by number for consistency and accuracy, but there is an additional field in the building record called synonym that can be used to search for building information by name. For example, Building 232 has a synonym of Spanagel Hall.
- **Location:** allows you to enter in great detail where a material can be stored and found, including the floor, room number, and location description (such as a particular shelf, drawer or cabinet).

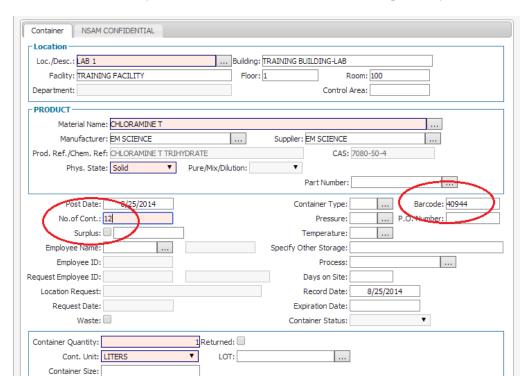
Locations illustrate how the facility and building information are linked directly to each other, as it requires that there be at least one record for each database above it in the hierarchy. You cannot create a location record without first linking a facility and building record to the location. You can create multiple storage locations within a single room. The field called Location/Desc. is a required field in Location and the place where the specific location is identified in detail.

• **Department:** Departments within an organization can be used to further categorize chemical locations. The department table is a user-created and managed table that can be accessed from the EMS location table. Departments within NSAM are entered in the Location record for easy data searching and data separation purposes.

Other Related Databases

There are five other databases linked to the facility hierarchy that you should be familiar with before moving on:

- **Employee**: contains information such as employee names, titles, locations, responsibilities, and phone numbers. ID numbers and photos, and medical and personal information can also be stored in this database. It is linked with the Inventory database and facility hierarchy, which list the responsible persons for location and material inventory data.
- Container: describes exactly what materials are stored in which locations by individual
 container. After an inventory record is created, it will automatically link itself to the appropriate
 MSDS and chemical reference record(s). Note that you can enter multiple identical containers in
 the container table by entering the number of containers in this field. When the record is saved,
 EMS will automatically create several container records with sequentially numbered barcodes.

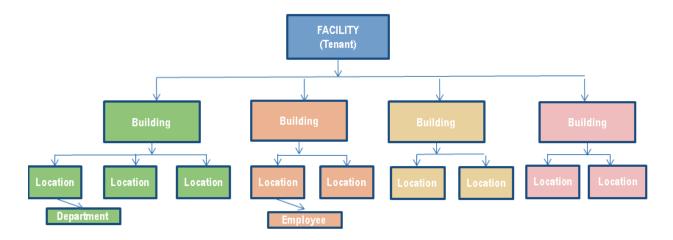




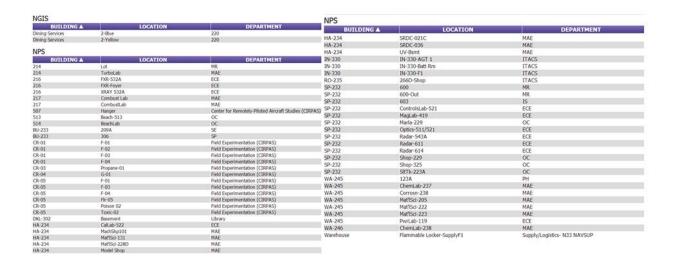
- Chemical Inventory: provides a summary view of all identical chemicals that are at a specific location. Identical containers are containers of a specific chemical by a specific manufacturer with the same physical state. If you are entering a new material into the system, a new MSDS record must be created first before chemical inventory container data can be added.
- MSDS: contains information from the chemical manufacturers Material Safety Data Sheet, including the components of an MSDS product. You can also access an MSDS image or text file in this database. The MSDS name field is linked to the chemical inventory record as the Product/Chemical Name.
- Chemical Reference: describes each component. It contains NFPA labels, HMIS information, and CAS numbers, percent's, regulatory data, and provides fields for detailed information about each chemical. The Chemical Reference database is linked to the Chemical Name field in the Inventory Record.

Together these databases will help you to track inventory, as well as provide you with access to the chemical and safety information associated with them.

DATA STRUCTURE AND HIERARCHY



NSAM TENANT HIERARCHY



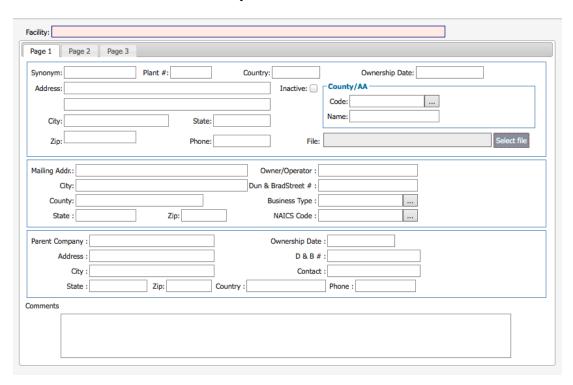
Part Two: Facility, Building & Location Hierarchy

In order for data to be properly organized in EMS, a hierarchy of facility (site, tenant), building(s) associated with this facility, and all of the unique locations (rooms, floors, cabinets, chemical benches, etc.) within the facility must be created.

Creating or Updating a Facility (NSAM Tenant)

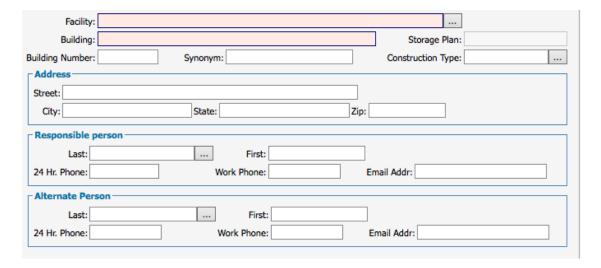
From EMS' main menu (on the left side of the screen), select Facility -> Facility. Click on **Add** or **Edit** from the top right menu to launch the form to add or edit a facility record. Note that the light

red fields are required fields. Also note that the Facility record screen contains three tabs to accommodate all of the data associated with the facility. Fill in the fields that you have data for and click **Save** on the tool menu at the top of the screen.



Creating or Updating a Building

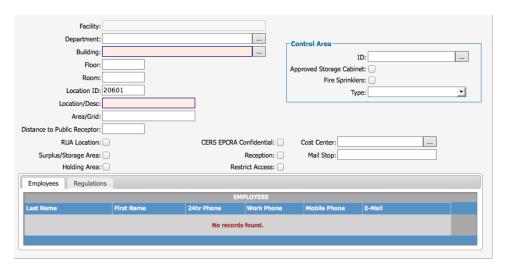
From EMS' main menu (on the left side of the screen), select **Facility -> Building**. Click on **Add** or **Edit** from the top right menu to launch the form to add or edit a building. Note that the light red fields, Facility and Building, are required fields. New buildings must be associated with an existing facility. The facility lookup can be launched by using the type-ahead feature or by clicking on the ... icon to the right of the Facility field. Fill in all of the information that you have available for the building and then click **Save** on the tool menu at the top of the screen. Enter the Building Number in both the Building and Building Number fields, and enter the Building Name in the Synonym field.



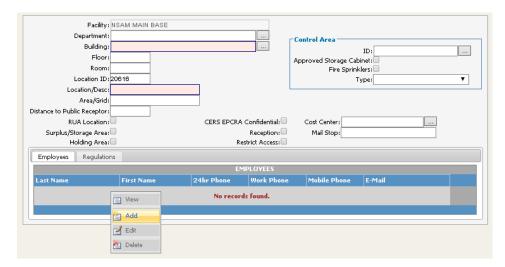
Creating or Updating a Location

From EMS' main menu (on the left side of the screen), select Facility -> Location. Click on Add or Edit from the top right menu to launch the form to add or edit a location. Note that the light red fields, Building and Location/Description, are required fields and the new location must be associated with an existing building. The building lookup can be launched by using the type-ahead feature or by clicking on the ... icon to the right of the Building field.

The Facility field will be auto-filled when a Building is selected. EMS will also auto-generate a location ID number for the new location. Fill in the remaining fields that you have data for and click Save on the tool menu at the top of the screen.



Note that there are two tabs at the bottom of the location screen where Employees and Regulations can be entered. To enter an employee, right-click in the open area under the column headings (Last Name, First Name, etc.). It is not required to enter employee or regulation data in the location fields. Any data entered in these tables is for reporting purposes only.

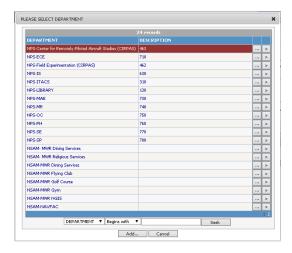


Departments & Employees

When a location is assigned to a particular employee, the department that this employee works for can also be assigned in the location record.

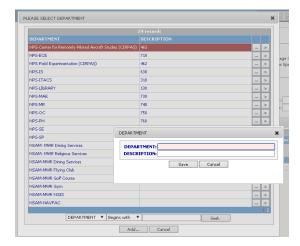
Using Departments

Departments within an organization can be used to further categorize Locations. The department table is a user-created and managed table that can be accessed from the EMS location table. If you use departments, then each location can be identified with its unique department.



Creating or Updating a Department

Click on the Ad button from within the Department selection table (accessed from the Department field lookup in the Location add or edit screens)



Creating or Updating an Employee Record

From EMS' main menu (on the left side of the screen) select **Employee** -> **Employee**.



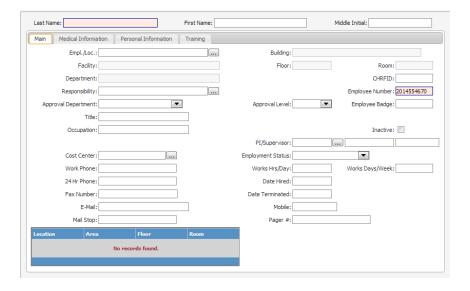
An Employee Search Screen will open.



At the top right of the screen you will see 4 buttons:



Click on Add or Edit from the top right menu. You will then see the form to add or edit an employee record.



This Employee record screen has 4 tabs:

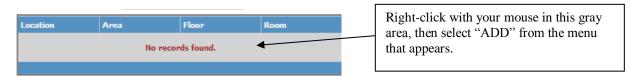
- Main: contains employee location and contact information
- Medical Information: next of kin, allergy, medication information
- Personal Information: birthday, salary, SS#, and home information

• Training: used with the EMS Employee Training Module to display classes this employee has taken

If you are adding a new record, EMS will auto generate an employee number which can be replaced with the NSAM designated employee number if desired. Fill in the employee's name and link the employee to an existing location. The employee's location can be filled in by using the type-ahead feature or by clicking on the ... icon to the right of the Empl./Loc. field.

Note: viewing of the medical and personal information tabs may be restricted by User Group.

The employee's "home" location is usually entered first. Additional locations for this employee may be added using the lower-left section of the employee screen:



A sequential Employee Number is assigned, *or* you may enter your own Employee Number. The "Approval" fields refer to the EMS Chemical Approval Module. Fill in the remaining information that you have available and click **Save** on the tool menu at the top of the screen. To save the record, click on the "Save" icon on the menu bar.



Note: data access is based on assigning a department from within the Location record screen, and not from within the Employee record screen. That is, when an employee record is created, and a location is selected, the facility and department fields are auto populated. This is the employee's primary location. The system does not rely on this for permissions/ access rights settings. EMS users can have one or multiple departments. Based on NPS' data structure, where there are departments that operate across multiple facilities, users must be filtered by department and not by facility.

Part Three: Users, Groups & Permissions

EMS system administrators can create both users and user groups to manage access to EMS' various features and functions.

Groups

User Groups are designed to establish pre-defined criteria for a certain type of user that will generally perform similar functions. System administrators create consistency, minimize errors, and save time by creating groups.

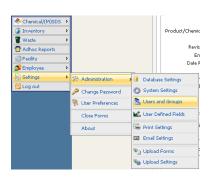
Setting up groups is a relatively easy process. System administrators can set up as many groups as needed to get a group of users going with identical access and user rights. Individual user rights can be modified later when setting up the individual user. That is, even if a user has been set-up under a group, the administrator can modify the user's access rights so that they are different from the rest of the group. For example, an administrator can create a user, assign them to a specific group, and then add/change/delete specific user rights as needed. The group rights are only a starting point.

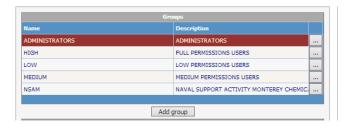
Note: group rights will get overwritten if the checkbox in the bottom of the form is selected.

Note: EMS Administrators with user setup rights can change their own and other's group rights. EMS cannot segregate or separate administrators with user access rights for a particular facility or department. Therefore, it will be important to decide early on who should have what rights, as you may need to have a specific person that is authorized to update users.

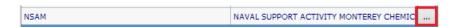
How to View, Edit and Add a User Group

Click on **Users and Groups** and a list of groups and users will display. Several groups have already been created for your installation, including a group called NSAM which is designed to easily create user rights for chemical users for the different tenants and users of EMS.

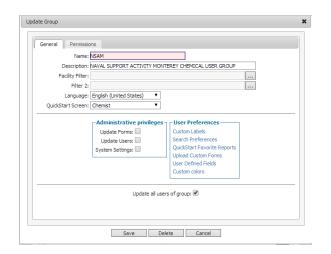


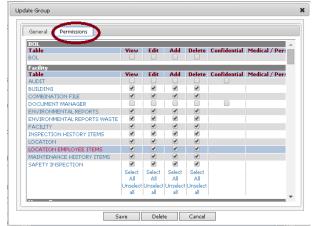


To view and edit an existing group, click on the button next to NSAM



The record will show all user rights for this group.



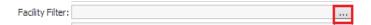


Field names and descriptions:

Name: This is the Group Name (required field)

Description: A short description of what user segment this group serves

Facility Filter: This filter allows administrators to limit data views to one or multiple **facilities** for this user group. Click on the button to the right of facility filter to display a list of facilities.



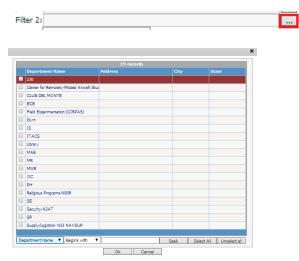
To assign one or more facilities as the only ones accessible by this group, click the checkbox next to each desired facility and then click **Ok** at the bottom of the form.

Note: Since this User Group can be used for EMS Chemical Users from different Tenant Groups, we will not select any facilities in the facility filter. You can assign and filter facilities when you set up a specific user.



Filter 2: This filter allows administrators to limit the data view to one or multiple **departments** for this User Group. Note that a department can be uniquely assigned to a particular location, allowing administrators to limit data access to targeted areas as needed.

Click on the button to the right of Filter 2 to display a list of departments.



To assign one or more departments as the only ones to be accessed by this group, click the checkbox next to each desired department and then click **Ok** at the bottom of the form.

Note: Since this User Group can be used for EMS Chemical Users from different Tenant Groups, we will not select any departments in the department filter. You can assign and filter departments when you set up specific users.

Language: English is the default language for this installation.

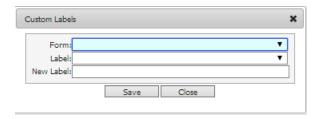
QuickStart Screen: This defines the opening Quick Start screen when a user associated with this user group logs in. The Chemist screen is set as the QuickStart screen for this user group. There is a dropdown arrow where other QuickStart screens can be selected.

Administrative Privileges: These are privileges reserved for EMS Administrators.

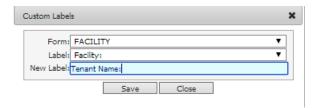
- **Update Forms:** Allows administrators to install custom forms. This is done in with the assistance of SFS Chemical Safety.
- **Update Users:** Allows administrators to update users and user rights.
- System Settings: Allows SFS Chemical Safety to configure and update the EMS installation.

User Preferences: Allows administrators to set up specific views and functions.

Custom Labels: Allows administrators to rename fields in EMS forms for all Group Users. To access this function click on Custom Labels and then select the form that you wish to customize (from the form drop down label).

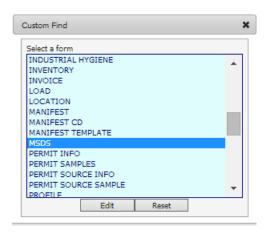


As an example of how this function works, we will select the "Facility" form and label it "Tenant Name".

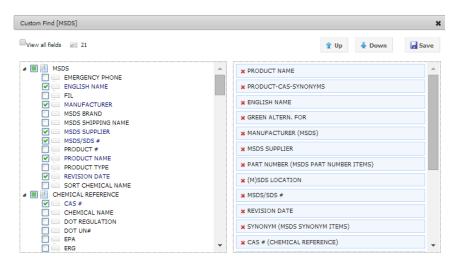


Once this change is saved, the field in the facility will now display the new label. Note that this is form-specific so, although the facility name field appears in many other forms, its label name will only change in the forms you type a new label for this field.

Search Preferences: Allows Administrators to select the fields that will display in the EMS search forms for all Groups Users. To access this function, click on **Search Preferences**, highlight the search form that you wish to be customize, and then click on the Edit button.

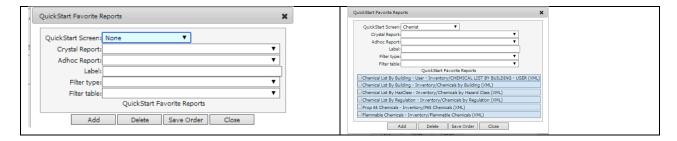


A list of all the fields in the Search will appear. For example, the MSDS form looks like the following:



On the left of the form you can check the search fields that you want to display for this search form, and on the right you can drag the fields in the order that you want them to be displayed. When done, click on the **Save** icon on the top right of the form and then **X** to close it.

QuickStart Favorite Reports: This function allows administrators to set the favorite reports that will be displayed on a particular QuickStart screen. Click on **QuickStart Favorite Reports** to access this function, select the QuickStart Screen for which favorite reports are to be created. In the example below, we have created Favorite Reports for the Chemist QuickStart screen.

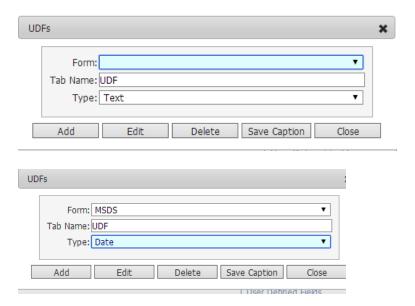


A maximum of six QuickStart Favorite reports can be listed.

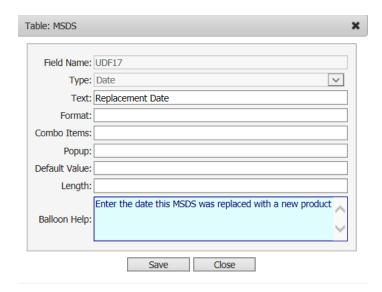
- To remove an existing report, check the checkbox next to it and click **Delete**.
- To add a report, click on the dropdown for Ad-hoc Report and select one of the existing Ad-hoc (Management) Reports. Once selected, enter the name that you want this report to show as in the Label field. If a report you would like to add is not available, you will first need to create it in the Ad-hoc Reports Module of EMS before you can select it here. To add Crystal reports, click on the dropdown for Crystal Reports and select one of the existing Crystal Reports that have been applied to your installation. Crystal Reports are installation-specific form reports. Once selected, enter the name that you want this report to show as in the Label field. Additional Crystal reports can be created using the Crystal Reports program which is licensed separately from EMS. Once created, the report can then be added to EMS.
- You can also set a filter for what data will be displayed in the favorite report selected.

Upload Custom Forms: This option is available in coordination with Chemical Safety to upload custom forms that have been designed specifically for your installation. This option does not currently apply to NSAM.

User-Defined Fields: This option allows you to create user-defined fields that are only visible to a particular user group. To access this feature, click on **User Defined Fields** and select the form that you will be adding one or more user-defined fields to. In our example below, we will use the MSDS form and add a UDF named "Replacement Date" which will be a date field.



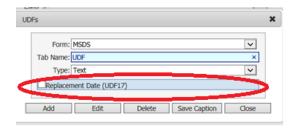
Click the **Add** button. In the next screen enter the field name, and other data as shown below:



There are several advanced options available in the setup of User-Defined fields that we will create with you once we have determined what UDFs are needed in your installation.

Combo: If the field type is a Combo field, you have the option of typing the values that the Combo Items will have (comma delimited). Example: Value1, Value2, Value3.

Click **Save** when done. Once you have saved all of the UDFs for this form, a list of them will appear as shown below.



Each of the UDF fields will appear in a new tab in the MSDS form with the caption UDF.



You have the option of renaming the tab something other than UDF. To do this, simply enter the new name in the Tab Name field and click on **Save Caption**. The next time you log into EMS, the UDF caption for this form will display with a new name.

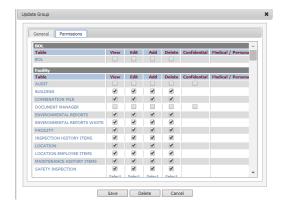
Note: UDF can also be selected from the EMS' main menu on the left side of the screen (Settings -> Administration -> User Defined Fields).



Custom Colors: Use this option to change the colors of EMS' screen forms and text. Click on Custom Colors and follow the instructions in the box below to reassign the system colors. Click on Reset to revert back to the default colors.



Setting Default Permission Levels: Click on the **Permissions** tab as shown below

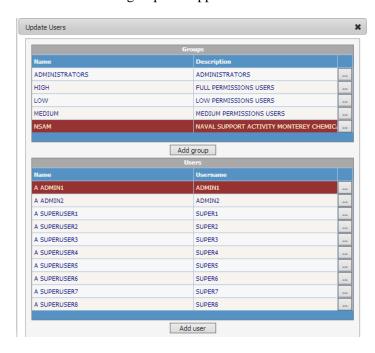


A list of table and permission options will appear. The NSAM User Group has been set up with typical access rights that a Chemical User may be granted. Administrators have the option of checking or unchecking specific user rights before saving the user group.

Checking the "Update all users of group" box will automatically update all users in this User Group with any changes to the User Group Preferences. Note: If custom user options have been applied to individual users, DO NOT check the box above as it will reset all their changes to the User Group Changes.

How to View, Edit and Add a User

- Click on Users and Groups. A list of Groups and users will display.
- Highlight the User Group for which you want to add or update a user. A list of all existing users under that group will appear.

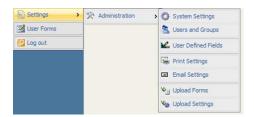


- To add a new user, click on the **Add User** Button and then select the employee name from the **Employee** dropdown button. Note that the sort order of the Employees is in first name then last name order. Also note that an employee is only allowed one user id and password, so if they already have been assigned one, you will not be allowed to create a second one.
- After selecting the employee, enter a user id. A typical protocol for entering user ids is either the persons email address or, alternatively, first initial, last name without any spaces.
- Type the initial password that the user will receive from you. The user then has the option of resetting the password when they next sign into EMS.
- Enter facility and department filters as desired. The facility filter allows administrators to limit the data view to one or multiple facilities for the user. Click on the button to the right of facility filter to display a list of facilities. To assign one or more facilities as the only ones to be accessed by this group, click the checkbox next to each desired facility and then click **Ok** at the bottom of the form.
- Filter 2 allows administrators to limit the data view to one or multiple departments for the user. Note that a department can be uniquely assigned to a particular location, allowing administrators to limit data access to targeted areas as needed. To use this feature, click on the ... button to the right of the Filter 2 field to display a list of departments. To assign one or more departments as the only ones to be accessed by this user, click the checkbox next to each desired department and then click **Ok** at the bottom of the form.
- The Group is already listed in the next field as is the language and the QuickStart Screen. These can all be changed as desired, but be aware that changing the Group will automatically reset all default user rights to the new User Group rights.
- User is Locked: This check box blocks the user from accessing the system.
- Change Password at Next Logon: Forces the user to change their password at the next system access.
- Last Login On: Shows a date stamp of when the user last accessed EMS.
- Administrative Privileges: These are privileges reserved for EMS Administrators.
- Update Forms: Allows Administrators to install custom forms in this EMS installation. This is done in coordination with SFS Chemical Safety.
- Update Users: Allows Administrators to update users and user rights.
- System Settings: Allows SFS Chemical Safety to configure and update the EMS installation.

Click Save to save the new user.

Part Four: Administration Settings

This section will demonstrate how to access and configure some of the most important functions of your EMS software installation. Please note that System Administration features are only available to authorized users. If the functions shown below are not available to you, please contact your EMS System Administrator or Chemical Safety for assistance. To access the system administration functions, select Settings -> Administration from the left side menu. Several menu options will be listed as shown below.



System Settings

System Settings are used to configure the way a particular installation functions. SFS Chemical Safety is responsible for creating and configuring the systems settings for your installation. Therefore, no operational instructions are listed in this guide and it is strongly recommended that NSAM Administrators do not access this option.

User Settings

These are functions that both Admin and Non-Admin users can access to change certain options specific to their own user id. EMS users can access and customize their settings from the main menu on the left side of the screen:



Select Settings -> User Preferences

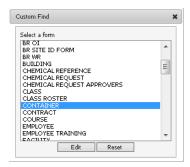




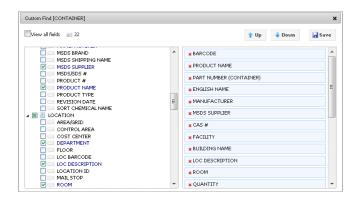
Users can configure which quick start screen will launch when EMS starts as well as customize search and favorite report settings.

Search Preferences

The Search Preferences link allows the EMS user to customize individual search screens to suit their needs. Click on Search Preferences and select the search screen that you wish to customize by highlighting it and clicking on Edit.



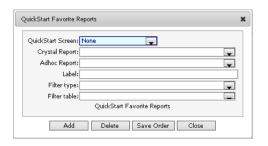
From the Custom Find screen, users can add, remove and reorder search fields.



To add a field, click in the check-box on the left side. To delete a field, click on the red X on the right side. To move a field up or down, highlight the field on the right side and then click on Up or Down.

Configuring Favorite Reports List

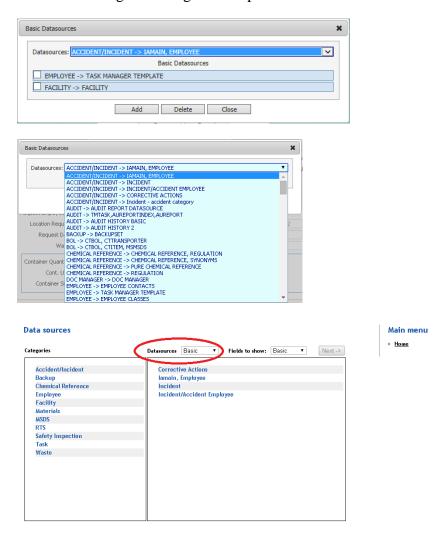
Users can configure up to six Crystal Reports or Ad-hoc (Management) reports for each quick start screen. Click on Quick Start Favorite Reports and then select the appropriate quick start screen from the dropdown list. Next, select a report from the Crystal Report or Ad-hoc Report dropdown list. Fill in a name for the report in the Label field. Regardless of the actual name of the report, the custom name that you type into the Label field will appear on the quick start screen. Repeat the procedure to add additional reports.





How to Specify a Management Report's Basic Datasource and Basic Fields

Users can configure management report basic datasources from the User Preferences dialog.



Setting the default basic fields works the same way.

