FACILITIES MANAGEMENT

600 PMs

U626: Fire Alarm and Suppression System PMs
EXAMPLES NEEDED FOR TRAINING

Slide 6: Access a XXX-FIRESYS record and an individual fire record like XXX-SUPPoo and explain the difference.

Slide 8: Access the equipment data forms from the BAS website to show where they can be printed from.

Slide 9: Go through the process of adding an individual fire equipment record.

Slide 10: Create a work order to order equipment tags.

Slide 12: Go through the process of adding an XXX-FIRESYS record.

Slide 13: Access the fire equipment survey form and explain the form.

Slide 16: Create another XXX-FIRESYS record and add the specifications data.

Slide 21: Explain the reasons for the fire PM consolidation.

Slide 22: Go through the process of copying another XXX-FIRESYS record to create a new one.

Slide 27: Review the fire PM requirements.

Slide 29: Review the sample PM text and how it can be incorporated and customized for a building.

Slide 30: Go through the process of scheduling fire PMs and attaching the customized task lists.

Slide 33: Explain why some of the PMs must be scheduled individually for efficiency sake and how to cross reference the routes, etc. on the customized task lists for the global PMs.

Slide 35: Explain how to create a child work order and update notes when follow-up repairs are required.
U626 FIRE ALARMS AND SUPPRESSION SYSTEM PMS

SUBJECTS COVERED IN THIS UNIT:

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Depending on the building, the following fire related equipment may be present.

<table>
<thead>
<tr>
<th>Equip Numbering</th>
<th>Equip Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXX-PUMPoo</td>
<td>Fire pump</td>
</tr>
<tr>
<td>XXX-SUPPoo</td>
<td>Wet suppression system, wet sprinkler system</td>
</tr>
<tr>
<td>XXX-ALRMoo</td>
<td>Fire alarm, building fire alarm system</td>
</tr>
<tr>
<td>XXX-SUPPoX</td>
<td>Dry suppression system, includes all dry valves</td>
</tr>
<tr>
<td>XXX-BDAIRX</td>
<td>Dry suppression system compressor</td>
</tr>
<tr>
<td>XXX-SUPPoX</td>
<td>Chemical suppression system, halon, CO2, etc.</td>
</tr>
<tr>
<td>XXX-ALRMoX</td>
<td>Fire alarm, chemical system fire alarm</td>
</tr>
<tr>
<td>XXX-EXTING</td>
<td>Fire extinguishers</td>
</tr>
<tr>
<td>None</td>
<td>Fire department connections</td>
</tr>
<tr>
<td>None</td>
<td>Fire doors</td>
</tr>
</tbody>
</table>
FIRE EQUIPMENT HIERARCHY

Fire Protection

- Fire Protection
  - Equip Group: FIRE SYS
  - Type: FIRE SYS

- Fire Alarm (& Multiplexer)
  - Keywords: FIRE ALARM FAMUX

- Water Based Suppression Systems
  - Keywords: SUPP DELUG SUPP DRY SUPP WET STANDPIPE COMP SUPP

- Special Suppression Systems
  - Keywords: SUPP HALON SUPP CHEM SUPP CO2

- Fire Pumps
  - Keywords: PUMP FIRE

- Fire Extinguishers
  - Keywords: FIRE EXTNG

- Other Equipment
  - Keywords: OTHER EQUIP
    - (Examples: piping valves, water supply, cabinets, foam generating equipment)
Individual pieces of fire related equipment are given their own equipment number for identification purposes.

Depending on the equipment, some fire equipment numbers will have PMs scheduled to them and others are only used when making work orders to repair the fire equipment (Fire PM scheduling is explained later in this lesson).
All buildings have a XXX-FIRESYS master equipment number set up for scheduling fire equipment PMs. This helps to reduce the number of work orders that need to be handled when scheduling fire equipment PMs.

The XXX-FIRESYS master equipment record contains information on all the components of the building fire system.
1. Fill out an Equipment Data Form as completely as possible. The forms are found at: [http://www.facm.umn.edu/famis/equipment_add.htm](http://www.facm.umn.edu/famis/equipment_add.htm)
2. Enter the individual fire equipment record as you normally would for any other piece of equipment, but don’t enter the specifications. All individual fire equipment records are coded as follows:

- **Parent** = XXX-FIRESYS
- **Keyword** = Select from the equipment hierarchy that best describes the equipment
- **Type** = FIRESYS
- **Equip Group** = FIRESYS
- **Criticality** = 1
3. Order equipment tags
   - Decide the number of tags that are needed; it’s common practice to tag the equipment shut-off as well
   - Create a service request (convert into a work order) to order equipment tag(s) from the sign shop. Utilize the Procedure Library for all work orders to the sign shop.
ADDING NEW RECORDS – EXISTING BLDG

SUPP02

- Tags are usually printed without a building number
- When the tags are received, apply double-sided tape to the back
- Tag the equipment in a conspicuous place
4. **Add the new fire equipment record specifications to the XXX-FIRESYS master equipment record for the building**
1. Take a physical inventory of all the fire equipment in the building and fill out the fire equipment survey form located at K:\ZoneAdmins\Fire System\FA and Supp Survey Sheet as completely as possible.

The information gathered should be specific to each system, i.e. XXX-ALRMoo, XXX-SUPPoo, XXX-PUMPoo. Use the “Other” and “Notes” lines to document idiosyncrasies of the systems.
2. Enter the individual fire equipment records as you normally would for any other piece of equipment, but don’t enter the specifications. All individual fire equipment records are coded as follows:

- **Parent** = XXX-FIRESYS
- **Keyword** = Select from the equipment hierarchy that best describes the equipment
- **Type** = FIRESYS
- **Equip Group** = FIRESYS
- **Criticality** = 1
3. Order equipment tags for each individual piece of fire equipment

- Decide the number of tags that are needed; it’s common practice to tag the equipment shut-off as well
- Create a service request (convert into a work order) to order equipment tag(s) from the sign shop. Utilize the Procedure Library for all work orders to the sign shop.
Adding new records – new BLDG

- Tags are usually printed without a building number
- When the tags are received, apply double-sided tape to the back
- Tag the equipment in a conspicuous place
4. Create the XXX-FIRESYS master fire equipment record by copying an existing “ONLINE” record from another building. This way the specification types will automatically copy over to the Specifications tab. Be sure to change the location information and the account numbers accordingly.
5. Enter a summary with a brief description of all the fire systems within the building, what they serve, and where they are located in the Full Description field on the Specifications tab.
**Adding New Records – New Bldg**

6. Enter the line by line specifications for the master XXX-Firesys record

![Equipment Specification Table](image)

<table>
<thead>
<tr>
<th>Specification Type</th>
<th>Cond Type</th>
<th>U/M</th>
<th>Lower Limit</th>
<th>Nominal</th>
<th>Upper Limit</th>
<th>Textual Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE ALARM SYSTEM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>172-ALRM00</td>
</tr>
<tr>
<td>ADDRESSABLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>MAIN FACP MFG / MD</td>
<td>NOTIFIER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>BATTERY BACK UP (Y)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BATTERIES (# OF)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
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<tr>
<td>PULL STATIONS</td>
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<tr>
<td>HEAT DETECTORS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>AREA SMOKE DETEC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

*U626 Fire Alarm and Supp System PMs Ver 1.1*
The fire equipment and PM consolidation project was undertaken to achieve the following goals:

- To reduce the number of PMs, work orders and purchase orders, thereby saving time and money
- To verify existing building fire system inventories, specifications and serves information
- To provide clear, concise and accurate PM task descriptions for building specific fire systems

If there is fire equipment in your district that has not been inventoried and consolidated, follow the procedures on the next few slides to complete this task as soon as possible.
Take a physical inventory of all the fire equipment in the building and fill out the fire equipment survey form located at K:\ZoneAdmins\Fire System\FA and Supp Survey Sheet as completely as possible. The information gathered should be specific to each system, i.e. XXX-ALRMoo, XXX-SUPPoo, XXX-PUMPoo. Use the “Other” and “Notes” lines to document idiosyncrasies of the systems.
2. Query the master XXX-FIRESYS record and view the work order history. If there is a history, the specification types for the building fire system will have to be manually added to the equipment record.
3. Go to the Specifications tab and manually add the specification types associated with keyword FIRESYS. Put your cursor in a blank Specification Type field and press the F9 key for the LOV. Follow the specification order established on a record with existing specifications. (Enter a period or a space to advance through the specification text fields without entering data).
4. Change the short description to: FIRE PROTECTION SYSTEMS (FOR PM PURPOSES ONLY)
5. Change the **Keyword** to FIRESYS
6. Change the **Criticality** to 1
7. Change the **Status** to ONLINE
8. If the XXX-FIRESYS record does not have a work order history, follow the next steps:

- Delete the existing XXX-FIRESYS equipment record
- Query an “ONLINE” XXX-FIRESYS record in a different building. Use the insert/duplicate functionality and create a new XXX-FIRESYS record (the specifications will automatically populate the Specifications tab)
- Verify the short description of the new record reads: FIRE PROTECTION SYSTEMS (FOR PM PURPOSES ONLY)
- Verify the Keyword = FIRESYS, Type = SYSTEM, Equip Group = FIRE SYS, Criticality = 1, Status = ONLINE
- Change location information accordingly: Site, Bldg, Zone
- Verify the Account information for the new equipment record
FIRE EQUIPMENT AND PM CONSOLIDATION

9. Un-schedule and make inactive the PMs attached to individual fire equipment.
10. Delete the specifications text from the individual fire equipment records.
11. Check secondary labor and printable notes for transferrable information, i.e. estimates, special instructions, etc.
12. Change the parent equipment numbers to XXX-FIRESYS for each individual fire equipment record.
13. Change the Equip Group and Type to FIRE SYS and delete the PM Group. (IS THIS CORRECT?)
14. If a piece of individual fire equipment is removed from a route, add the PM scheduled on the route to the equipment record and make it inactive.
FIRE PM REQUIREMENTS

- Global fire PMs are named for their frequency, and the text of the PM is created by the Planner/Scheduler to include the tasks which will be performed on the PM. These PMs are then scheduled to the master XXX-FIRESYS record for the building.

  - **FIRE-M** (12 x per year)
  - **FIRE-Q** (2 x per year)
  - **FIRE-S** (1 x per year)
  - **FIRE-A** (1 x per year)
  - **FIRE-1** (1 x per year) – For annual dry suppression system testing only
  - **FIRE-3** (1 x every 3 years) – For dry suppression system testing only

- There are a few fire PMs that are equipment specific and are scheduled directly to the individual equipment record or on routes for ease of scheduling:

  - **FIRE-090** (every 3 months) – Fire Dept Connection Inspection
  - **FIRE-067** (1 x per year) – Annual Portable Fire Extinguisher Inspection
  - **FIRE-PUMP** (1 x per year) – Annual Fire Pump Flow Test
FIRE SYSTEMS PROGRAM REQUIREMENTS – SUMMARY

- **Fire Pumps**
  - Monthly (M) – Churn test

- **Wet Suppression Systems**
  - FIRE-090 Fire dept connection inspection
  - Quarterly (Q) – Flow switch test
  - Semi- Annual (S) – Tamper switch test, flow switch test
  - Annual (A) – Main drain test, lubricate OS&Y valves

- **Dry Suppression Systems (dry, pre-action, pre-action deluge)**
  - Semi-Annual (S) – Tamper switch test, low air supervisory
  - Annual (A) – Dry valve trip test (contractor), lubricate OS&Y valves, main drain test (if equipped)
  - Three Year (3) – Full flow dry valve trip test (contractor)

- **Chemical Suppression System**
  - Semi-Annual (S) – Halon, CO2 and chemical suppression system recertification (contractor), Kitchen hood test and recertification (contractor)
  - Annual (A) – Halon, CO2 and chemical suppression system recertification (contractor), Test and recertify chemical hood systems, i.e. NTS (contractor)

- **Alarm Systems (depending on the size of the building, these PMs can be split up throughout the year as long as every device is tested once during the year)**
  - Semi-Annual (S) –, test initiation devices (1/2 if split), Test dedicated smoke control devices, operational inspection of fire doors
  - Annual (A) – test notification devices, test initiation devices (1/2 if split), test dedicated smoke control devices, test and record smoke evacuation fan operation

- **Fire Extinguishers**
  - FIRE-067 Annual portable fire extinguisher inspection
Creating and Scheduling Fire PMS

1. Using the equipment survey as a guide, create the textual portion of the PMs for FIRE-M, FIRE-Q, FIRE-S, FIRE-A, and FIRE-3 if they apply and save them as Word documents. A sample PM textual guide and checklist is available at K:/proc.

2. Review the PM text documents with the supervisor of the building and line staff to make sure everything is correct before scheduling the PMs to the equipment.
3. Add the global fire PMs to the XXX-FIRESYS master equipment record for the building
4. Schedule the PMs according to the Fire Systems Program Requirements, and as dictated by the work order history (if there is one).
5. Copy and paste the corresponding Word document PM text into the additional task list for each PM.
CREATING AND SCHEDULING FIRE PMS

6. Schedule the other equipment specific PMs to their individual pieces of equipment as needed
7. Fire extinguisher PMs are usually scheduled on a route for the entire district. However this is not set in stone, PMs should be set up as efficiently as possible to address the fire testing needs of the district with the least amount of paperwork.
If a fire PM is performed and additional repairs are required to the equipment, create a child work order from the PM work order, making sure to use the individual equipment number on the newly created child work order.
Record the repair notes on the individual fire equipment record
The End!!!

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