

# Ensuring Safe and Productive Science at the Advanced Photon Source

## Challenge

Maintaining a safe and productive work environment is a top priority at Argonne National Laboratory. Consistent with that goal, personnel at Argonne's Advanced Photon Source (APS) must help ensure the health and safety of the Argonne community. To effectively manage an ever-changing set of maintenance, testing, and inspection activities, the APS management team needed a way to contact, remind, and enable its personnel to fulfill their periodic environmental safety and health (ES&H) responsibilities.

## Solution

APS developed two online tools that help ensure timely performance and adequate documentation of ES&H-related tasks. The Periodic Action Notification and Tracking System helps manage jobs that must be performed periodically. The Corrective Action Tracking System provides for characterization and trend analysis of problems requiring corrective action. APS personnel access records in both tools from a common worldwide web interface that enables them to attach files and provide links to other relevant information.

### Periodic Action Notification and Tracking System:

APS personnel must perform many tasks at regular intervals to maintain a safe and reliable work environment and comply with Argonne rules. This system notifies (1) assigned personnel when tasks are due and (2) their managers about tasks that have not been performed on schedule.

Management and other personnel can define their own unique tasks or make use of preprogrammed tasks reflecting Argonne and APS requirements, as shown in Figure 1. In either case, they can incorporate text and graphic documentation.

**Corrective Action Tracking System:** The Corrective Action Tracking System prompts personnel to address deficiencies that require a single intervention and document their actions in a consistent and retrievable manner.

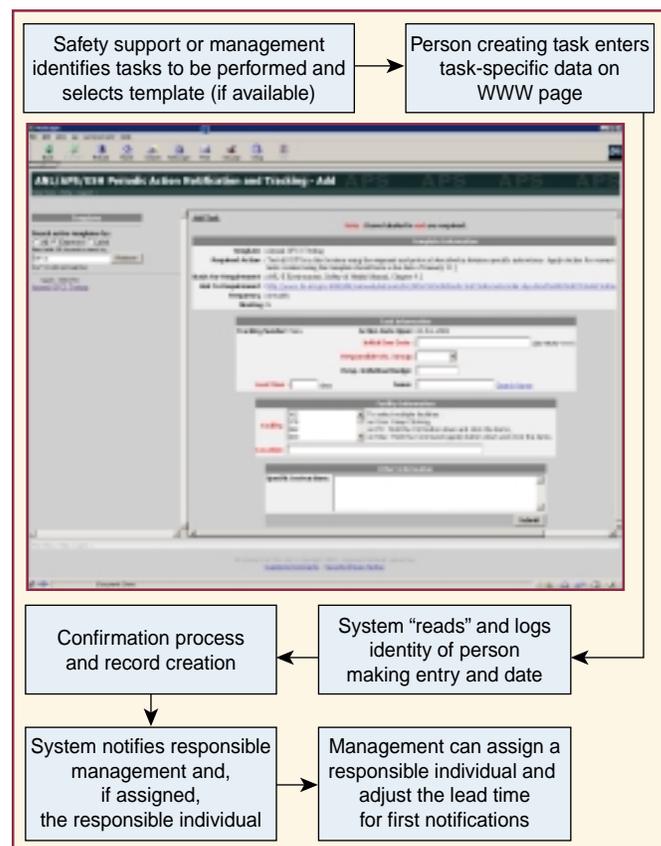


Figure 1. Setting up a task in the Periodic Action Notification and Tracking System.

## How Do the Systems Work?

As shown in Figure 2, both systems incorporate e-mail reminders and simple online forms for gathering information. Additional features include the following:

- The Periodic Action Notification and Tracking System and the Corrective Action Tracking System can be used from any computer with clearance and technical ability to access the APS web site. Users simply log into the APS web site and choose the desired system.

- When tasks are due soon or past due, automated e-mail contacts assigned personnel to prompt them to act. Past-due tasks are reported to management.
- Easy-to-fill-out forms guide the user in entering data and setting up tasks.
- Information is stored in databases for future access and reporting.

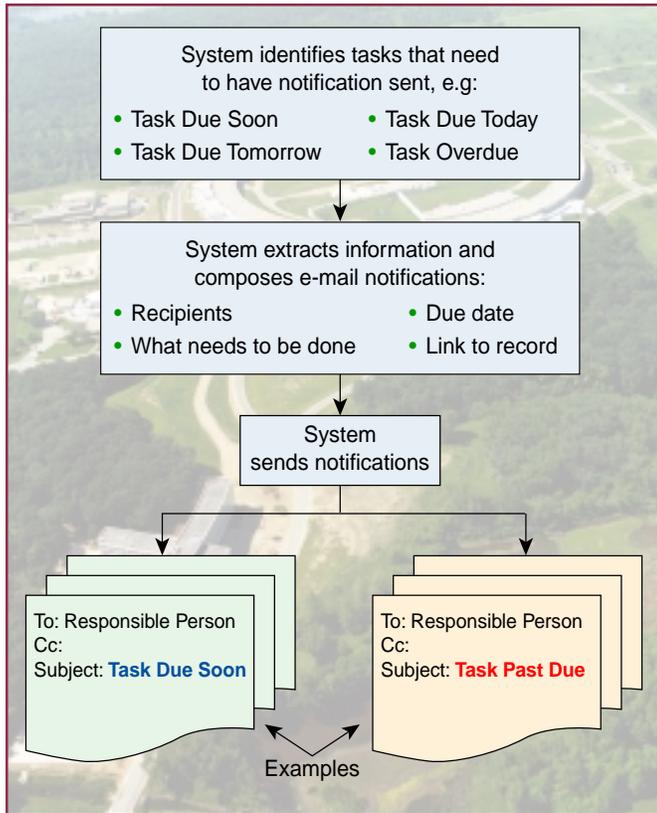


Figure 2. Notifying assigned personnel when tasks are due.

## Impact

Automated tracking systems help ensure that Argonne’s world-class APS research environment is safe, reliable, and productive (Figure 3). Management can concentrate on scientific efforts without compromising their responsibility for ensuring that safe-

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guards are maintained. Others spend only the time needed to perform and document critical ES&H activities. By making effective use of the lead time they specify, APS personnel can work on their own schedules. Because the system notifies safety personnel (as well as management) when tasks are not performed on time, use of the system will free up some of the time safety support personnel would have spent physically inspecting workspaces and allow them to focus on problem areas.

Although this tool was originally developed for safety, it is currently being used to remind technical personnel about other non-safety-related work that must be conducted periodically as well.

Users can specify items to be included using a WWW page. In this example, a group leader has requested all items due in July.

The resulting report screen provides a summary of each qualifying item. The report contains [links](#) to display detailed information on individual items.

Figure 3. The APS automated system tracks tasks for reporting.

