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from specialty «Mechanical Engineering»

Discipline RT 4319 «Repair technology»

Module AP 9 «Production automation»

LECTURE NOTES

Topic 4. Planning and scheduling

Planning is the heart of good inspection and preventive repairment. As described earlier, the first thing to establish is what items must be maintained and what the best procedure is for performing that task. Establishing good procedures requires a good deal of time and talent. This can be a good activity for a new graduate engineer, perhaps as part of a training process that rotates him or her through various disciplines in a plant or field organization. This experience can be excellent training for a future design engineer.

Writing ability is an important qualification, along with pragmatic experience in repairment practices. The language used should be clear and concise, with short sentences. Who, what, when, where, why, and how should be clearly described. The following points should be noted from this typical procedure:

1. Every procedure has an identifying number and title.
2. The purpose is outlined.
3. Tools, reference documents, and any parts are listed.
4. Safety and operating cautions are prominently displayed.
5. A location is clearly provided for the repairment mechanic to indicate performance as either satisfactory or deficient. If it is deficient, details are written in the space provided at the bottom for planning further work.

The procedure may be printed on a reusable, plastic-covered card that can be pulled from the file, marked, and returned when the work order is complete; on a standard preprinted form; or on a form that is uniquely printed by computer each time a related work order is prepared.

Whatever the medium of the form, it should be given to the preventive repairment craftsperson together with the work order so that he has all the necessary information at his fingertips. The computer version has the advantage of singlepoint control that may be uniformly distributed to many locations. This makes it easy for an engineer at headquarters to prepare a new procedure or to make any changes

directly on the computer and have them instantly available to any user in the latest version.

Since inspection or preventive repairment is a standardized procedure with little variation, the tasks and time required can be accurately estimated. Methods of developing time estimates include consideration of such resources as the following:

1. Equipment manufacturers' recommendations
2. National standards such as Chilton's on automotive or Means' forfacilities
3. Industrial engineering time-and-motion studies
4. Historical experience.

Experience is the best teacher, but it must be carefully critiqued to make sure that the ‘‘one best way’’ is being used and that the pace of work is reasonable.