**STEP 1**
Develop/update RCM Program Plan

**STEP 2**
New Equipment Design Recommended

**STEP 2A**
Current Equipment Design

**STEP 2B**
New Equipment Design Recommended

**STEP 3**
Complete End Item & Level 1 Breakdown

**STEP 4**
Complete Level 2 Breakdown

**STEP 5**
Complete Levels 3 and 4 Breakdowns

**STEP 6**
Identify all functions

**STEP 7**
Perform Functional Significance Determination for each function

**FUNCTIONAL SIGNIFICANCE DETERMINATION LOGIC**

- Does the loss of function have an adverse effect on safety or environment?
  - Yes
  - No
- Does the loss of function have an adverse effect on operations?
  - Yes
  - No
- Does the loss of function have an adverse effect on economic?
  - Yes
  - No
- Is this function protected by an existing PM task?
  - Yes
  - No

**STEP 8**
Identify all functional failures and Compensating Provisions

**STEP 9**
Identify all failure modes and their failure effects (Local, Next Higher & End Effects)

**STEP 10**
Select Severity Class for the failure mode

**STEP 11**
Complete FMECA.

**STEP 12**
Collect failure and test data

**STEP 13**
Calculate or estimate failure distribution curve

**STEP 14**
Select a failure mode for RCM Analysis and perform STEPS 11 thru 23

**SSWG**

- To Severity Classification of failure modes

**RCM ANALYSIS TASKS**

- RELIABILITY ANALYSIS
- IMPLEMENTATION TASKS
- REDESIGN / CIP TASKS
- OPERATIONS
- OTHER EVENTS
- FMECA TASKS

**FMECA TASKS**

- FEEDBACK TASKS
Determine or estimate PF condition, PF-FF interval or wear out/life limit age.

**STEP 17**

Determine or estimate PF condition, PF-FF interval or wear out/life limit age.

**MODULE 10**

Answer failure consequences questions.

**STEP 15**

Will this failure mode happen within the service life of the equipment?

**STEP 16**

Determine whether failure has PF, wear out, or random type failure characteristics.

**STEP 18 A THRU 18F REQUIRED INFORMATION (as applicable, not all data required for all FM’s)**

Description for each task

- Determine Number of OC or PHM tasks required during PF interval to meet Pacc
- Determine PM intervals for all tasks
- Determine Single task total man-hours and cost

**STEP 18A**

Develop PHM task

**STEP 18B**

Develop Servicing / Lubrication PM task

**STEP 18C**

Develop On-Condition PM task

**STEP 18D**

Develop Hard Time PM task

**STEP 18E**

Develop Other Action

**STEP 18 F**

Develop Failure Finding PM task

**STEP 18F**

Develop Other Action

**EVIDENT**

Does the failure mode cause a function loss or secondary damage that could lead to serious environmental violation?

**HIDDEN**

Does the occurrence of the hidden failure mode in combination with a second failure / event cause a function loss or secondary damage that could lead to an adverse effect on operating safety or lead to serious environmental violation?

**YES**

**NO**

Evident Safety / Environment

Evident Economic / Operational

Hidden Economic / Operational

Hidden Safety / Environment

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

**YES**

**NO**

Steps 16 and up steps are not to be performed for this failure mode.

**GO TO STEP 23**

**A**

**B**

**C**

**D**

**E**
**FULL RCM PROGRAM TASK SEQUENCE FLOWCHART**

**STEP 18A**
- Determine costs associated with each item
- No action taken costs

**STEP 18B**
- Analysis / Select which option or combination of options is best at meeting RCM metrics

**STEP 18C**
- Determine costs associated with each item
- No action taken costs

**STEP 18D**
- Analysis / Select which option or combination of options is best at meeting RCM metrics

**STEP 18E**
- Determine costs associated with each item
- No action taken costs

**STEP 19**
- Analysis / Select which option or combination of options is best at meeting RCM metrics

**STEP 20**
- Determine costs associated with each item
- No action taken costs

**STEP 21**
- Analysis / Select which option or combination of options is best at meeting RCM metrics

**STEP 22**
- Provided usage prediction data (STEP 13) to logistics to ensure adequate replacement parts are available

**STEP 23**
- Repeat STEPS 11 thru 23 until all FM(s) have been analyzed

**STEP 24**
- Review RCM results with designers and potential operators/maintainers for inputs
- Recommended PM acceptable?

**STEP 25**
- Perform Packaging Process

**STEP 26**
- Perform LORA and update maintenance plan

**STEP 27**
- Was engineering judgment / estimated values used during any part of the RCM analysis?
  - Yes
    - Develop Age Exploration task
  - No
    - Direct PM task to be implemented regardless of RCM results

**MODULE 14**
- Review RCM results with SSWG, FST, maintainers and operators for inputs

**F**
- Recommended PM acceptable?
  - Yes
    - Go to STEP 2B
  - No
    - Go to STEP 2B
STEP 27
Implement PM tasks

STEP 28
Collect test and in-service data

STEP 29
Does new data support current FMECA and RCM entries?

YES
Go to STEP 28

NO
Go to STEP 6