



The Capital Group
"The Power of Partnership"

Human Resource Service
Training Organisational Development Services
Financial Advisory & Debt Management Services
Events Management Services

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September 13, 2023

To Whom It May Concern

OUR REF: TCGL/PC/13/09/2023

Dear Sir/Madam,

Invitation to Corporate Training on "Reliability Centered Maintenance Engineering"

The Capital Group Limited in collaboration with Data-Trak Systems of Canada – noted for equipment maintenance and operational reliability- is pleased to invite you to participate in its 5-day corporate training program dubbed; "Reliability Centered Maintenance Engineering" scheduled for the 16th to 20th of October, 2023.

The Capital Group Limited is a Management Consultancy Firm that has, for the past twenty-five years, been providing specialized services in Human Resource, Training, Outsourcing, Recruitment, People and Project Management, Corporate Restructuring and Change Management, Debt Management, Facility Management and Financial Advisory Services.

Attached to this letter is a comprehensive training proposal for your review. Please do not hesitate to contact us should you require any further information.
Melvin-0552533115/0209141788.

Yours faithfully,

Samuel L. Adetola

Chief Executive Officer



The Capital Group Limited
"The Power of Partnership"

RELIABILITY AND MAINTENANCE ENGINEERING

Training

— 5 Day Training Workshop —





Welcome

*Every family has a story.
welcome to ours*

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INTRODUCTION

RCM is a systematic way of looking at equipment, its functions, its failure modes, effects and the consequences of failure. The purpose is to select maintenance tactics to minimise the consequences of failure and apply these tactics as part of the preventive and protective maintenance program. This program will focus on RCM – Reliability Centred Maintenance, its processes and benefits as well as its pitfalls and requirements, and specifically how companies can use RCM to develop and apply solid processes for the protection of their critical assets. Delegates will concentrate on understanding and managing these tools, defining how to bring financial returns to the organizations and how to avoid the problem areas.

Working in small teams, the attendees will focus on workshops and case studies drawn from the client's own equipment and experience and based solidly on the learnings during the class work. These will be used throughout the program and will concentrate on preparing and troubleshooting the necessary practical processes to achieve the required level of equipment protection. Following the class Attendees will be encouraged to apply the techniques to the equipment they are familiar with so that it can be adopted in their own work environment.

This will be a very challenging and focused course, requiring full-time attendance and attention from the Attendees. Some homework outside the class hours may be needed to ensure the materials are fully covered and the desired results are achieved.

COURSE OBJECTIVES

Operational continuity, equipment protection and failure prevention in recent years has become closely related to Reliability Centred Maintenance; RCM is one of the best tools in failure prevention, and one that can add great value to an organization's business operations.

In this course, Delegates will:

- learn and practice the fundamentals of RCM.
- use practical examples relating to equipment typical of their own work-site.
- practice the ten steps of RCM based on their own equipment.
- develop detailed maintenance plans for their equipment and the multiple ways in which they fail.
- focus on developing solid preventive and protective processes that can be quickly applied to their own worksites.



PROGRAM CONTENTS

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Many significant advances in equipment reliability and protection in recent years have been based on RCM. This program will start with a practical model of how RCM fits in with equipment reliability, other maintenance improvement tools and the CMMS/EAM's that we all rely on to deliver these improvements. Many firms struggle with the implementation of RCM, so it is equally important to identify the conditions that need to be in place before embarking on an RCM program - how applicable it is to the delegates' organization.

The core of the program will combine a thorough review of what RCM can achieve, with a concentration on the process necessary to put it into place in the client company.

Delegates will gain a solid understanding of what RCM is by working through a ten- step process:

1. **Introduction, history and role of RCM** – looking at the background of RCM and how it fits into the range of tools available to the modern Physical Asset Manager. Particular, emphasizing that it is not a silver bullet, but can be very effective if used in combination with other tools such as CMMS, CBM etc.
2. **Identifying Critical Equipment and selecting target equipment for RCM.**-the equipment hierarchy is broken down into its functional elements or assemblies to make the examination of the effects of failures easier and more effective. Techniques for selecting the critical equipment will be reviewed.
3. **Determining Primary, Secondary and Protective Functions** - each functional assembly, equipment and system is designed to perform specific functions. Understanding and defining these functions is necessary to ensure a complete analysis of the equipment failures. Many familiar examples will be used.
4. **Defining Functional Failures** - each function may have several different ways of failing and each may be important to reliability. The Key is a thorough understanding of how “failure” is defined – related to the equipment's required function, not necessarily a “go-stop” alternative.

PROGRAM CONTENTS

5. **Defining Failure Modes** - once the functional failures are identified, we need to define the process that results in the lost performance; i.e. what actually happens to the machinery. Examples will continue to follow the practicality of the delegates' workplace.
6. **Analyzing Failure Effects** - Each failure mode can have one or more ways of showing up; these will be defined and explored. Here we also apply the economic test – is it worthwhile taking any action? If the impact is minimal, then maybe no action is needed.
7. **Selecting Tasks and Schedules** – now we understand the failures and the effects, we can design the best way to react – i.e., what maintenance action do we now propose? Using a logic tree, delegates will segregate the failure modes into what can be done, what should be done and how often.
8. **Implementing Tasks** - entering the task requirements into, and planning them within the maintenance management system which the plant uses, and training the maintainers in any new techniques with which they may not already be familiar.
9. **Implementing RCM** – consolidating the processes needed to effectively achieve the objective of equipment protection. This will include the practical O&M steps, additional training, team selection, roles and tasks, analysis and feedback.
10. **Beyond RCM to Reliability** - a summary of how RCM should be integrated with other tools and concepts to ensure its effective use. In this section, the cost effectiveness issue will be addressed – and tied into ROI (Return on Investment).

Running throughout this entire program will be a set on workshops that apply the RCM techniques to the equipments that the attendees are familiar with. The intention here is to develop a solid set of processes that can be effectively applied within their own work environment. This will require in-depth knowledge of these equipments and may require after-hours research into their operation and performance.

COURSE BENEFITS

By attending this seminar, Delegates will:

- Learn and practice the fundamentals of RCM.
- Gain familiarity with the techniques by application to their own equipment.
- Identify the pitfalls of RCM and develop strategies to avoid it.
- Understand the process of planning and implementing RCM methods required to achieve the required protective level.
- Be able to decide how to make this methodology successful in their own workplace.
- Understand how to turn RCM into Living RCM and set the conditions for continuous reliability improvement.



WHO SHOULD ATTEND?

The program will be applicable to Engineers and Technicians in Maintenance, Reliability, Materials and Procurement, as well as Managers and Supervisors.

The attendees will be working in teams of 3 or 4; to ensure that the facilitator can spend enough time with the teams, we strongly recommend that attendance be capped at 20 participants.

As noted, before, the course will require the full-time attendance and attention of the participants with the possibility also of after-hours work.



COURSE METHODOLOGY

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To maximise the value of the in-house program, an important pre-program step is required. Attendees will be requested to be prepared to discuss details of the critical equipment with which they work on a regular basis. This will be vital to make sure that we are dealing with familiar equipment, rather than examples brought by the presenter.

The training program itself consists of a lively blend of presentations (PPTX), explanations and discussions. Throughout the program will be a long running workshop applying the learnings to client's equipment. The results will be reviewed at each stage with the intent of their becoming the accepted Best Practice for their company.

AFTER THE COURSE

1. Personal Development Plan. The PDP is often described as the most important lasting feature of the programs. After each session, attendees browse their materials, select and prioritize key elements that they want to implement or research. After the program, the selections are consolidated, and a task list is built for the top priority items. In this way, the benefits of the course can last a lifetime, and form an important part of the attendees' career development.
2. Certificate of Accomplishment based on attendance and participation
3. The course materials are provided by email to each participant in soft copy format for use in revision sessions.



ABOUT THE COURSE

Leader

/ Ben Stevens /

ABOUT THE COURSE LEADER

Ben Stevens for over 40 years was President of DataTrak Systems Inc – a Canadian company dedicated to training and consulting in the maintenance and reliability business. Ben is now in private practice focusing on maintenance and reliability training.

His experience covers all aspects of Maintenance, Materials and Physical Asset Management and CMMS/EAM systems in businesses such as Power Generation, T&D, Oil & Gas, Mining, Steel, Water and Wastewater etc. For eight years he was President of OMDEC Inc, focusing on training, consulting and software for reliability and maintenance management. Prior to that he was CMMS/EAM leader in PricewaterhouseCoopers' International Centre for Excellence in Maintenance Management.

His earlier career included being Canadian distributor, sales and support centre for CMMS/EAM systems, and CFO and CAO in several manufacturing companies. He holds a Master's Degree in Managerial Economics, and has delivered hundreds of successful international maintenance training, workshops and conference presentations around the world. He is a frequent contributor to books, journals and web-site newsletters. Detailed CV available.

FEW OF OUR CLIENTS

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GHANA WATER COMPANY LIMITED





/ AMS / Ghana Specialty Fats Limited /

ADMINISTRATIVE INFORMATION

Date: 16th - 20th October, 2023

TIME: 9:00AM TO 4:00PM

VENUE: The Capital Training Centre (Accra)

RATE PER PARTICIPANT: A Cedi Equivalent of USD 1,500.00 (Tax Exclusive)

NB: This covers tea/coffee breaks, lunch, course materials and certificate.

OPERATIONAL CONTACT

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