

## Writing the Vacation Employment Report Engineering Faculty, Monash University

### Part 1: Introduction

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Before beginning to write any report, it is first necessary to clarify your aims; that is, to know what you want the report to *achieve*. This will help you decide what to include in the report and the best way to order your information. To understand the type of content required in the vacation employment report, you should start with the objectives of the Vacation Employment requirement.

#### Vacation Employment Objectives:

- to *gain* direct knowledge of Engineering practice
- to *gain* an appreciation of your future role as an Engineer

#### Therefore, the objectives of your report should be:

- to *inform* the reader about the knowledge of engineering practice that you gained
- to *inform* the reader about the understanding of your future role that you gained

### Content

**NB: These items are a general guide applicable to all departments. Civil, Chemical and Mechanical Engineering students should refer to your departmental guidelines for further information.**

#### Your observations and understanding of the professional engineering context:

- the company: what it does and how it is done
- company organisation and management structure (whole company or your department)
- interactions between management, engineers and technicians: consultation and problem-solving processes, relationship between staff at different levels

**You are encouraged to comment on what you observe; for example, what works well and why, what could be improved and how it could be improved.**

### Report of the technical work undertaken:

- Description of the department, project, or tasks on which you were employed
  - include methods, techniques, skills, equipment or components involved (as applicable to your field)
- Description of your contribution:
  - include details of your tasks, problems you encountered, how you solved them, your role within the team (as applicable to your situation)
  - comment on how you were able to use and develop your existing knowledge or skills and if not, why not

**NB: Flow charts, diagrams, photographs and tables can be an efficient way to convey information. However, keep in mind that figures and tables:**

- should be used only where they serve a useful purpose in illustrating or clarifying a point made in your text
- should not be included merely for decoration or to fill space
- must be given a number and title
- must be referred to at the appropriate point in your text

**See:** <http://www.monash.edu.au/lis/lionline/writing/engineering/technical-report/5.3.xml>

### Evaluation of vacation employment:

- Did you learn what you hoped or expected to learn? If not, why not?
- What did you gain?
- How did your observations of the company's operations add to your understanding of the engineering context?
- How useful was the work you completed in developing practical skills or extending your understanding of your engineering field?
- What theoretical knowledge (from your university study) were you able to apply to your practical work?
- What theoretical knowledge or practical skills did you lack or gain?

**NB: If you are not able to comment on any of these broad areas, think about why you cannot. The reasons themselves may provide an interesting insight into the company's culture, the nature of its work, or your university study. For example, if you feel you did not learn much about management-staff relations, it could be because management allowed staff a great deal of freedom, or because staff at your level were excluded from meetings.**

## Part 2: Report Structure

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**NB: Chemical Engineering students should use the Vacation Report Summary form available on the department website. Other students are advised to follow a standard report format, as shown here.**

### Title Page

*Include:*

- your name and student ID
- your department and year level
- your employer's name and address
- your position title and the dates of your employment

### Contents Page

- use numbered sections and sub-sections (see: <http://www.monash.edu.au/lis/lionline/writing/engineering/technical-report/>)
- refer to departmental vacation report guidelines to decide headings and structure
- detailed product lists, equipment photographs and other company information may be included in appendices if relevant and referred to in your report

#### Sample Contents Page

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**NB: The headings listed in departmental guidelines are intended as a guide to the type of *content* to include. You are free to decide your own structure and to choose appropriate section and sub-section headings.**

## Introduction

- states the purpose of report (what the report is about)
- provides background to the topic
- gives a brief structure outline

*Include:*

- company name and location, brief description of the company product or the services it provides,
- length of employment, position title and brief description of the type of work you performed

### Sample Introduction

In order to gain a practical understanding of the role of the engineer in the workplace, Monash University Engineering students are required to undertake 12 weeks of vacation employment with an engineering company before graduation. This report describes my experiences and observations while employed at Enviromill Ltd from 1st January to 31st March 2007.

Enviromill is a small company located in Clayfield, Victoria, which recycles paper to produce a range of low-cost stationery and household paper products. I was employed as a junior assistant engineer in the packaging section, where the main duties involve the maintenance and modification of heavy automated machinery.

An overview of the company and its organisational structure is followed by a detailed description of the two projects in which I was involved. A critical assessment of the value of this experience completes the report.

## Body

*Include:*

### A. A section describing the company

Include its main product or service, information about the number of employees and plants, an outline of the company organisation (a structure diagram is useful). You can include your observations on operational procedures and the interaction between management and staff here, or in a separate section.

This section may have several sub-sections. See below for some examples.

### Sample Company Profile

Huntly and Rose Ltd (HR) was established in 1984 to provide independent expert advice on all technical, commercial, environmental and strategic aspects of the design and application of wind energy technology. Today the company employs over 100 professional staff in the United Kingdom, Europe, Japan, the USA, and Australasia. Major clients include wind turbine manufacturers, wind farm developers and operators, national government agencies, international organisations, electrical utilities and financial institutions (Huntly and Rose Prospectus 2001).

Consulting services offered by HR include wind farm development services, wind turbine research and design services or strategic studies. Dedicated software and hardware products developed by HR to assist in the design, analysis and monitoring of wind farm developments and wind turbines are also available commercially. These include Windaker, a sophisticated wind farm design program, and TurboD, a wind turbine design calculation and modelling program (Huntly and Rose 2006).

All senior engineers have completed postgraduate studies in renewable energy technology and detailed wind energy analysis training at the HR head office in the United Kingdom. In addition, all professional engineering staff have the opportunity to work at an overseas office for periods ranging from three months to two years.

The Melbourne office is the headquarters for projects in Australia, New Zealand, South-East Asia and Fiji.

### Sample Organisational Structure – Engineering Operations Division

The company has three divisions; Research and Development, Engineering Operations, and Sales and Marketing. The head of each division reports to the Chief Executive Officer who in turn reports to the Board of Directors.

In the Engineering Operations division (see Figure 1) the Head Engineer oversees all projects and operations, while the Assistant Head Engineer handles administrative matters including staff employment and training. Senior Engineers are responsible for the allocation and monitoring of work in their respective sections, and work closely with each other and with the Workshop Supervisor as most projects involve staff from all four sections.

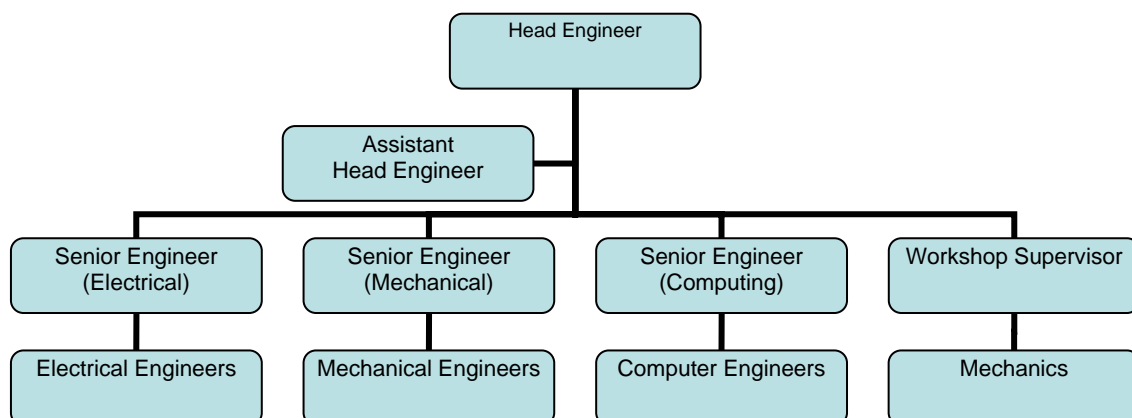


Figure 1. Techquip Ltd Structural Organisation: Engineering Operations (Techquip Staff Handbook 2002)

## Sample Management-Employee Relationships

The company has a highly structured system of communication between management and employees. Information is disseminated through fortnightly meetings between upper management, departmental heads and section supervisors. Section supervisors in turn hold weekly meetings with their staff to monitor projects and resources and solve any problems. Each supervisor writes a weekly report to the head of department and issues requiring action are tabled for discussion at the fortnightly meetings. As a result, all staff are fully informed about changes to company policy and workplace procedures, and matters related to their own section or project.

However, motivation in my section was not high and there was a lack of team spirit. After some weeks I realised that the communication system was very rigid. Even relatively small matters which could have been handled by the division supervisor had to be recorded in the weekly report and authorised at the management meeting. Because of this, supervisors and staff have little opportunity to make decisions or use their own skills and creativity to solve problems.

### B. One or more sections describing your work

You should include an explanation of the overall project, department or system and your role within the team, along with a detailed description of your unique contribution, how you applied your theoretical knowledge or existing skills, what you learned, and how you handled any problems which arose.

### C. A section critically evaluating your experience

This section can form an effective conclusion to your report.

**NB: Be careful *not* to make meaningless statements such as:  
'I learned many things. Vacation employment was a valuable experience.'**

**Instead, state *what* you learned and *in what way* the experience was useful or disappointing.**

## Sample Evaluation of Vacation Employment

My time with Zigzag Ltd gave me a useful insight into how some of the methods we have studied theoretically are applied in the workplace. As I had expected, I saw how quality and production are handled in a manufacturing industry and how problem-solving techniques are implemented effectively. I had plenty of opportunity to both apply and extend my theoretical knowledge in this area, particularly quality methods such as Six-Sigma and Total Quality Management. I also learned to operate a range of testing equipment, so have gained a useful skill.

The efficiency of the job allocation, monitoring and evaluation processes was impressive. Production was kept moving at a steady pace so that staff members were neither idle nor rushed. However, I was surprised to find that communication between management and other staff was extremely casual. There were no regular meetings, and no clear procedures to follow if a staff member had a problem which could not be handled by the supervisor. At times this was frustrating for staff.

In conclusion, I was fortunate to undertake vacation employment with XYZ as it gave me an experience of the engineering workplace, with examples of both good and bad practice.

## References

If you use any information taken from company publications, such as the prospectus, annual report or website, you must cite in-text references and include a reference list.

### Referencing in-house publications:

#### Sample in-text citation

The company was established in 1983 to provide high-quality parts for the local textile manufacturing industry (Reiko Engineering Prospectus 2004).

#### Sample Reference List:

Reiko Engineering Ltd. (2004) *Prospectus*, Reiko Engineering, Melbourne

Reiko Engineering Ltd. (2002) *Staff Handbook*, RPK group Ltd, Melbourne

*Reiko Engineering* (2005, 12 May last update) [online] Available:  
<http://www.reikoeng.com.au> [Accessed 7 July 2006]

## Part 3: Language Focus in your Report

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### ACTIVE OR PASSIVE VOICE?

In general, reports require impersonal language, but this can lead to awkward sentence structure. Clear, efficient communication of information should always take priority. In this type of report, when describing your own experiences, it is acceptable to use 'I':

'I was involved in two projects...'

'To solve this problem, I applied theory from level 2 thermodynamics...'

### TENSE CHOICE

#### Simple present tense:

- Background information:  
'The company *employs* 120 people, 30 of whom *work* in administration.'  
'The plant *consists* of three buildings....'
- Report contents:  
'This report *presents* a description and evaluation of work undertaken for ABC Ltd during December 2006.'
- Report structure:  
'A description of the company *is followed* by...'  
'The report *concludes* with an evaluation of...'

#### Simple past tense:

Refers to past completed events. Keep in mind that, by the time your report is being read, your vacation employment will be a past, completed event. Therefore, you will need to use the simple past frequently.

'I *was employed* as a junior assistant engineer in the production department'

'Six weeks *were spent* assisting the design team.'

'I successfully *solved* the problem by applying...'

#### Present perfect (continuous) tense:

Refers to events or conditions which began in the past and are still current or ongoing:

'This process has never been updated.'

'ABC Ltd *has been producing* high quality parts for the manufacturing sector since 1965.'

For more grammar help, go to: <http://www.monash.edu.au/lls/llonline>  
Click on Grammar/Grammar for Engineering