

REPORT					
Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cymmnn	Commercial	RPT021.R01	Document ID	nn

COMMERCIAL IN CONFIDENCE

Title:	Maintenance Review against the ISPE Baseline
Pathname:	<i>C:\POServer\Templates\Report\RPT021_Maintenance Audit Report_R01.dot</i>
Purpose:	The purpose of this document is to perform a self assessment of the maintenance practices at Client Pty against international regulatory requirements and latest draft ISPE Baseline guideline, (December 2005).
Scope & Client Requirements:	This review is restricted to maintenance practices for manufacturing and laboratory testing equipment and does not extend to calibration, capital projects and or qualification / validation activities.

Document Approval: *Completion of the following blocks signifies the approver has read, understands, and agrees with the content of this document.*

<i>The author is signing to confirm the technical content of this document.</i>				
Authorised By:	Job Title:	Company:	Signature:	Date:
		PharmOut Pty Ltd/...../.....
<i>The <xxx> Manager is signing to confirm the technical content of this document.</i>				
Approved By:	Job Title:	Company:	Signature:	Date:
	<xxx> Manager	PharmOut Pty Ltd/...../.....
<i>The Quality Coordinator is signing to confirm this document complies with the PharmOUT Quality System.</i>				
Approved By:	Job Title:	Company:	Signature:	Date:
	Quality Coordinator	PharmOut Pty Ltd/...../.....
<i>This document is effective from the date of the last approval signature and will be reviewed in three years.</i>				

Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cyymmnn	Commercial	RPT021.R01	Document ID	nn

Table of Contents:

EXECUTIVE SUMMARY	4
1. INTRODUCTION	4
1.1. OVERVIEW	4
1.2. BASIC APPROACH	5
1.3. REFERENCE REGULATIONS, GUIDELINES AND STANDARDS USED	5
2. SELF ASSESSMENT	7
2.1. REGULATORY REQUIREMENTS	7
2.1.1. <i>Organisation and Personnel</i>	7
2.1.2. <i>Buildings and facilities</i>	9
2.1.3. <i>Equipment</i>	11
2.1.4. <i>Production and Process Controls</i>	14
2.1.5. <i>Records and Reports</i>	16
2.2. BASELINE [®] RECOMMENDATIONS	19
2.2.1. <i>Maintenance Program (as per Baseline 2.5.1)</i>	19
2.2.2. <i>Systems Maintenance Strategy and Maintenance (as per Baseline[®] 2.5.2)</i>	20
2.2.3. <i>Change Management (as per Baseline[®] 2.5.3)</i>	21
2.2.4. <i>Roles and Responsibilities (as per Baseline[®] 2.5.4)</i>	22
2.2.5. <i>Maintenance Documentation (as per Baseline[®] 2.5.5)</i>	22
2.2.6. <i>Continuous Improvement (as per Baseline[®] 2.5.6)</i>	23
2.2.7. <i>Equipment (as per Baseline[®] 2.5.7)</i>	24
2.2.8. <i>Spare Parts and Materials (as per Baseline[®] 2.6)</i>	24
2.2.9. <i>Training (as per Baseline[®] 2.7)</i>	26
3. CONTINUOUS IMPROVEMENT	27
3.1. MAINTENANCE BEST PRACTICE	27
3.1.1. <i>The basics</i>	27
3.1.2. <i>Lean Manufacturing</i>	27
3.1.3. <i>Visible Performance Measurement</i>	27
3.1.4. <i>Six Sigma</i>	27
3.1.5. <i>SMED (Quick Change Overs)</i>	27
3.1.6. <i>5 S Implementation</i>	27
3.1.7. <i>World Class Manufacturing</i>	27

Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cymmnn	Commercial	RPT021.R01	Document ID	nn

3.1.8. *Mistake Proofing & Poka Yoke* 27

3.1.9. *Cellular Manufacturing / Plant Layout*..... 27

3.1.10. *Theory of Constraints*..... 27

4. OBSERVATIONS **28**

Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cyymmnn	Commercial	RPT021.R01	Document ID	nn

Executive summary

The self assessment of the maintenance practices at was undertaken. Those practices were compared against regulatory requirements and ISPE recommendations.

The assessment determined that the **Client Pty** maintenance practices are largely compliant with both regulatory requirements and ISPE recommendations.

The following recommendations resulted from the review (in order of priority):

- 1.
- 2.

1. Introduction

Maintenance has long been recognised as being critical to the operations it supports and as having a direct impact on product quality. For this reason, regulatory bodies have released regulations covering maintenance, and more recently the ISPE has released a Baseline[®] guide for maintenance practices.

The Maintenance system at **Client Pty** plant was reviewed against:

- Current GMP practices, contained in Title 21 CFR's, PIC/S
- The Draft ISPE BASELINE[®] GUIDE, Volume 8, MAINTENANCE
- Other general industry regulatory and guidance documents.

It is understood that **Client Pty** chiefly sells their products into the following markets, Australia, Europe and United States, hence Maintenance Practices are assessed against compliance to those market's regulations.

This report identifies any non-compliance and includes recommendations for enhancements of the Maintenance practices to ensure compliance.

The self review was conducted by on the 5th May 2006.

1.1. Overview

The self assessment entails:

1. Identifying the salient ISPE Baseline Guide (referred to as Baseline[®] in this report) recommendations and current GMP regulations issued by the FDA, EMIA and TGA (PIC/S).
2. Self assessing your Maintenance Program and documented practices against the regulations.
3. Self assessing your Maintenance Program against World Best Practice.

Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cyymmnn	Commercial	RPT021.R01	Document ID	nn

1.2. Basic Approach

Step 1 identifies the following five CFR categories and the nine Baseline[®] categories that were appropriate for this review as well as the relevant PIC/S regulations. These are provided for your easy reference.

CFR (Regulatory) categories

- Organisation and Personnel
- Buildings and Facilities
- Equipment
- Production and Process Controls
- Records and Reports

Baseline[®] categories

- Maintenance Program
- Systems Maintenance Strategy and Maintenance Plans
- Change Management
- Roles and Responsibilities
- Maintenance Documentation
- Continuous Improvement
- Equipment
- Spare parts and Materials
- Training

Step 2 entails a critical self examination of maintenance practices against the regulations and Baseline recommendations.

Step 3 entails ranking the importance you place on certain progressive maintenance practices and then assessing yourself against these requirements.

1.3. Reference Regulations, Guidelines and Standards used

This audit was conducted using the following specific standards.

- ISPE BASELINE[®] GUIDE, Volume 8, Maintenance – December 2005
- Title 21 CFR's part 210 and 211

Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cymmnn	Commercial	RPT021.R01	Document ID	nn

- Australian Code of Good Manufacturing Practice For Medicinal Products, 16 August 2002 " (*Guide to Good Manufacturing Practice for Medicinal Products, version PH 1/97 (Rev. 3), dated 15 January 2002*)"



Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cyymmnn	Commercial	RPT021.R01	Document ID	nn

2. Self Assessment

2.1. Regulatory Requirements

Applicable 21 CFR 211 (cGMP) regulation	Applicable PIC/C's EU / Australian GMP regulations	ISPE Baseline Practice Guide	Client Pty Quality System
2.1.1. Organisation and Personnel			
<p>§211.25 Personnel Qualifications</p> <p>(a) Each person engaged in the manufacture, processing, packing, or holding of a drug product shall have education, training, and experience, or any combination thereof, to enable that person to perform the assigned functions. Training shall be in the particular operations that the employee performs and in current good manufacturing practice (including the current good manufacturing practice regulations in this chapter and written procedures required by these regulations) as they relate to the employee's functions. Training in current good manufacturing practice shall be conducted by qualified individuals on a continuing basis and with sufficient frequency to assure that employees remain familiar with CGMP requirements applicable to them.</p>	<p>CHAPTER 2 - PERSONNEL</p> <p>2.1. The manufacturer should have an adequate number of personnel with the necessary qualifications and practical experience. The responsibilities placed on any one individual should not be so extensive as to present any risk to quality.</p> <p>2.5. The head of the Production Department generally have the following responsibilities:</p> <p>iv. to check the maintenance of his department, premises and equipment;</p> <p>2.6. The head of the Quality Control Department generally has the following responsibilities:</p> <p>vi. to check the maintenance of his department, premises and equipment;</p>	<p>General CGMP training and job specific CGMP training must be performed. CGMP training should ensure that maintenance persons understand how their work impacts or might impact, on drug quality. A CGMP training curriculum should be in place for all maintenance staff. Training should be documented. A process to ensure qualifications of individuals performing maintenance activities should be in place. As part of the individual's qualification, there should also be documentation of each employee's education and work experience as it relates to his/her function within the maintenance unit.</p>	



Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cymmnn	Commercial	RPT021.R01	Document ID	nn

Pages 8 to 25 are purposely left out, if you want the full version, email us today on info@pharmout.com.au.

2.2.9. Training (as per Baseline[®] 2.7)

A Training Program should be established as part of the Maintenance Program. The Training Program establishes the roles and responsibilities for training, training content, training delivery systems, evaluation of training and the documentation practices. The Training Plan is the actual schedule of courses or learning activities that will be accomplished for the given period. The learning activities should be focused toward understanding the CGMP regulations, as well as on the skills for a specific job function. An important concept of CGMP training is that people must understand how their duties may impact drug quality.

The basic skills that a person brings to the job are typically confirmed in the hiring process. For instance, a licensed electrician is confirmed to have the basic skill sets for his or her trade; therefore, documentation to that affect is not typically required by the regulators. Training requirements for contractors are similar to a company's internal workforce. It is the manufacturing firm's responsibility to ensure that the contractor does not impact drug quality. This responsibility cannot be delegated to the contractor. However, this also does not relieve the contractor of its responsibility.



Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cymmnn	Commercial	RPT021.R01	Document ID	nn

3. Continuous Improvement

3.1. Maintenance Best Practice

Principles	Ranking	Degree embraced	Comments
The basics			
Lean Manufacturing			
Visible Performance Measurement			
Six Sigma			
SMED (Quick Change Overs)			
5 S Implementation			
World Class Manufacturing			
Mistake Proofing & Poka Yoke			
Cellular Manufacturing / Plant Layout			
Theory of Constraints			



Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cymmnn	Commercial	RPT021.R01	Document ID	nn

4. Observations

Note number	Discussion	GMP Risk assessment
1.		
2.		
3.		
4.		
5.		



Client	Project No.	Department	Template Ref	Document ID	Revision
Client	Cyymmnn	Commercial	RPT021.R01	Document ID	nn

Document Information

Revision History

Revision	Modified by	Change No.	Description of Change
1.0	Trevor Schoerie	N/A	New Issue

PharmOut or Customer Documents or Technical References

Doc. No.	Document Title	Revision No.
N/A	Client reference documents or emails	N/A

Appended Documents

Doc. No.	Document Title	Revision No.
FRM006	ISPE Baseline Maintenance December 2005	December 2005

Glossary of Terms

Term	Definition

DOCUMENT END