



## POSITION DESCRIPTION

<b>Position Title:</b>	Process Engineer
<b>Cluster / Business Unit / Division</b>	Commercial Products & Services
<b>Section or Unit:</b>	Minerals
<b>Classification:</b>	Band 4/5 linked role
<b>Job Family:</b>	Engineering and Technical
<b>Position Description Number:</b>	PD-2541
<b>Work Contract Type:</b>	Professional
<b>STEMM/NON-STEMM:</b>	STEMM
<b>STEMM CATEGORY:</b>	Engineering

### POSITION PURPOSE

The primary objective of the Process Engineer is to provide process engineering support for projects to develop new or improved processes for clients in the minerals industry.

### ORGANISATIONAL ENVIRONMENT

ANSTO leverages great science to deliver big outcomes. We partner with scientists and engineers and apply new technologies to provide real-world benefits. Our work improves human health, saves lives, builds our industries and protects the environment. ANSTO is the home of Australia's most significant landmark and national infrastructure for research. Thousands of scientists from industry and academia benefit from gaining access to state-of-the-art instruments every year.

The Minerals business unit is a team of more than 60 consultants and technicians with expertise that covers chemical engineering, metallurgy, mineralogy, chemistry, geology, and radiation safety. ANSTO Minerals provides practical solutions and innovative technology in ways that deliver financial and environmental benefits to the mining and minerals processing industries.

Minerals incorporates a Pilot Plant Group that undertakes pilot plant and related projects in order to support the commercialisation of new processes and process improvements.

### ACCOUNTABILITIES & RESPONSIBILITIES

#### Key Accountabilities Band 4

- Assist a project manager in the planning, design, set-up and operation of pilot plants in order to develop metallurgical processes for industry clients.
- Contribute to pilot plant campaigns as an operator - responsible for running metallurgical processes reliability and escalating issues to the campaign manager.
- Conduct experimental work and ensure that the data obtained is reproducible, accurate, appropriately recorded and reported in a report-ready format to ensure that the client receives a high-quality consultancy service.
- Summarise data from experimental and pilot programs to ensure that the project manager receives reliable data in a reportable format. Recognise the value of data and identify gaps that need to be filled in order to draw conclusions and develop process solutions. This involves applying sound judgement based on scientific knowledge/experience to identify good data and the ability to credibly question results.
- Communicate technical information to inform the ANSTO Minerals' task/project leaders of progress of tasks, noting any issues that need addressing.
- Contribute to first-draft technical notes and reports in support of pilot plants for the project manager to facilitate reporting to ANSTO Minerals' clients.

- Contribute ideas for innovation and creativity for solving scientific/engineer problems and provide competitive advantage to ANSTO Minerals' projects.
- Take on a deputy area supervisor / area supervisor role in order to both maintain and improve the management, cleanliness and organisation of pilot plant areas.
- Establish and foster professional networks to promote ANSTO Minerals.
- Undertake additional duties as required and during periods of leave of other staff.

### **Key Accountabilities Band 5**

In addition to the above accountabilities of the band 4 role, the band 5 key accountabilities include:

- Taking responsibility for the planning, design, set-up and operation of pilot plants. In the planning phase of a project, contribute to project proposals, quotations and establishment of project objectives.
- Fulfilling the role of campaign manager with a high level of autonomy, overseeing pilot plant operations including supervision of technical and professional operational staff who are on shift and control the pilot plant to the target conditions.
- Design and produce logsheets that capture all required process information and analyse, summarise and interpret data from experimental and pilot programs to ensure that the project manager receives reliable data in a reportable format.
- Take the lead in producing first-draft technical notes and reports in support of pilot plants for the project manager to facilitate reporting to ANSTO Minerals' clients.
- Identify opportunities for innovation and creativity for solving scientific/engineering problems and provide competitive advantage to ANSTO Minerals' projects. This includes taking the lead on facility projects from conceptual design through to delivery.

### **Decision Making**

- The position works within a framework of project requirements, legislation, policies, professional standards and resource parameters. Within this framework the position has some independence in determining how to achieve assigned objectives however will be constrained by the project requirements, deliverables and timeframes once they are set.
- The ANSTO values, organisational corporate plan, business plan, operational excellence program, the Minerals business strategy and commercial and development project plans provide the context for the position.
- The position is fully accountable for the accuracy, integrity and quality of the content of work undertaken and advice provided and is required to ensure that decisions are based on sound evidence, but at times may be required to make effective judgements under pressure or in the absence of complete information or expert advice.
- Determine key work priorities within the context of agreed work plans and project plans and will consult with the line manager on complex, sensitive and major issues that have a significant impact on the project or team members.
- The levels of authority delegated to this position are those approved and issued by the Chief Executive Officer. All delegations will be in line with the ANSTO Delegation Manual AS-1682 (as amended or replaced).

### **Key Challenges**

- Designing and constructing complex pilot plants to tight deadlines.
- Trouble shooting pilot plant equipment and processes.
- Working with multi-disciplinary and specialist teams towards common goals.
- Managing the client's expectations while managing multiple competing tasks.

- Preparing complex reports that require an in-depth understanding of the metallurgical processes involved, and an ability to independently develop specialised calculations as part of the data interpretation (without established guidelines being available, at times).

## KEY RELATIONSHIPS

The Process Engineer reports to a Senior Process Engineer– Pilot Plant Operations.

On a project basis the role will involve supervision/oversight of technicians to set-up and operate pilot plants, as well as to improve pilot plant facilities.

The position's key internal customers include members of the Minerals team.

This position may occasionally interface with external clients. Networking in the mining industry is encouraged.

## KEY RELATIONSHIPS

Who	Purpose
<b>Internal</b>	
Manager	<ul style="list-style-type: none"> <li>• Receive guidance and direction</li> <li>• Provide professional and evidence based advice</li> <li>• Provide regular updates on key tasks, issues &amp; priorities</li> <li>• Report on progress of project outcomes consistent with project plans and goals</li> <li>• Recommend and gain endorsement for plans and goals and other initiatives</li> <li>• Escalate issues and propose solutions</li> </ul>
Work area team members	<ul style="list-style-type: none"> <li>• Support team members and work collaboratively to contribute to achieving outcomes</li> <li>• Provide advice and analysis on a full range of matters</li> <li>• Contribute to group decision making processes, planning and goals</li> <li>• Collaborate and share accountability</li> <li>• Identify and escalate conflicts.</li> </ul>
<b>External</b>	
Customers and suppliers	<ul style="list-style-type: none"> <li>• Communicate and provide advice and information to clients and suppliers and answer questions.</li> </ul>

## POSITION DIMENSIONS

<b>Staff Data</b>	
Reporting Line	Reports to the Senior Process Engineer– Pilot Plant Operations
Direct Reports	-
Indirect Reports	-

## Special / Physical Requirements

Location:	Lucas Heights Working in different areas of designated site/campus as needed May be required to work for short periods of time outside ANSTO, possibly on remote sites.
Travel:	May be required to travel to other ANSTO and/or remote sites from time to time

Physical:	<p>Office based physical requirements (sitting, standing, manual handling, movement around office and site, extended hours working at computer)</p> <p>Industrial facility physical requirements (lifting, standing for long periods, operating machinery, equipment)</p> <p>Labour intensive physical requirements (sitting, standing, occasional manual handling up to 20 kg)</p> <p>Frequent movements (climbing, stooping, kneeling, crouching, crawling)</p> <p>Working in a loud environment</p> <p>Wearing personal protective equipment for the handling of hazardous and/or radioactive materials</p>
Radiation areas:	<p>May be required to work in radiation areas under tightly regulated conditions</p> <p>Perform duties in an area where radioactive materials are handled under tightly controlled safety conditions</p> <p>Perform duties with and in an area where hazardous chemicals or materials are handled under tightly controlled safety conditions</p>
Hours:	<p>Willingness to work extended and varied hours based on operational requirements</p> <p>After hours work will be required for short and infrequent periods</p> <p>Occasional work at ANSTO on a shift roster may be required</p>
Clearance requirements:	Satisfy ANSTO Security and Medical clearance requirements

### Workplace Health & Safety

Specific role/s as specified in AP- All Workers  
2362 of the ANSTO WHS  
Management System

## KNOWLEDGE, SKILLS AND EXPERIENCE

### Band 4 level

1. Degree or higher in Chemical Engineering/Metallurgy.
2. Industry experience in Chemical Engineering or Hydrometallurgy including laboratory related work experience and hands on skills related to pilot plant design and operation.
3. The ability to work under the guidance of a senior professional's supervision, prioritise work and respond to changing priorities and deadlines in order to complete assigned duties and tasks.
4. Demonstrated ability to communicate information and establish productive relationships and share information with others, including strong team work and customer service focus.
5. Demonstrated ability to follow standard procedures, regulations and OHSE requirements.
6. Intermediate skills in Microsoft programs including Word, Excel and Outlook.
7. Hold a current driving licence.

### In addition to the required knowledge skills and experience above, the Band 5 level will require:

1. Demonstrated post-graduate industry experience in Chemical Engineering or Hydrometallurgy including laboratory related work experience and hands on skills related to pilot plant design and operation.
2. The ability to work more autonomously with limited supervision.
3. Experience in managing a pilot plant from the planning to execution phase of the project.

4. Be highly familiar with all process equipment used in piloting and be able to troubleshoot and remedy most operational difficulties encountered.
5. Experience producing and presenting high quality hydrometallurgical data analysis summaries and complex written reports.
6. Advanced skills in Microsoft programs including Word, Excel and Outlook.

#### VERIFICATION

This section verifies that the line manager and appropriate senior manager/executive confirm that this is a true and accurate reflection of the position.

Line Manager		Delegated Authority	
Name:	Mitchell Grierson	Name:	Sateesha Tirumali Seetharam
Title:	Senior Process Engineer - Operations	Title:	General Manager, Minerals
Signature:		Signature:	
Date:		Date:	

**Process Engineer Linked Role (PD-XXXX)**  
**Band 4 to Band 5 Transition Checklist**

Name:	
Role Commencement Date:	
Assessment Date:	

**Note:** The transition will be assessed as part of ANSTO's APEA process, and will require at least one full APEA objective setting and review cycle to complete.

Requirements for Transition	Met Criteria
<b>Full performance</b> of Band 4 accountabilities Inclusive of knowledge, skills and experience described in this PD <i>and</i> in the individual's performance objectives of their APEA	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Demonstration of pursuing and building</b> Band 5 accountabilities Inclusive of knowledge, skills and experience described in this PD <i>and</i> identified as development objectives in the individual's APEA	<input type="checkbox"/> Yes <input type="checkbox"/> No

**Senior Process Engineer's Assessment and Recommendation**

I have reviewed the employee's competence and capabilities in accordance with Linked Role PD-2451 and certify that the employee meets all requirements for transition and recommend transition from Band 4 to Band 5 be endorsed.

Name:	
Signature:	
Date:	

**Manager, Pilot Plant Operations**

I have assessed the submission and confirm that the employee meets all requirements for transition from Band 4 to Band 5.

Name:	
Signature:	
Date:	

**General Manager, Minerals**

I have reviewed all information and approve transition from Band 4 to Band 5.

Name:	
Signature:	
Date:	
Effective Date of transition:	