New

Ministry

Agriculture and Irrigat ȯ n

Describe: Basic Job Details

Position

Position ID

Position Name (200 character maximum)

Pro œssing Techno bgist

Requested Class

Job Focus

Supervisory Level

Agency (ministry) code

Cost Centre

Program Code: (enter if required)

Employee

Employee Name (or Vacant)

Organizational Structure

Division, Branch/Unit

☑ Current organizational chart attached?

Supervisor's Position ID

Supervisor's Position Name (30 characters)

Supervisor's Current Class

Design: Identify Job Duties and Value

Job Purpose and Organizational Context

Why the job exists:

Reporting to Manager, Operations & Facilities, this position provides technical support and operational skills to client initiated developmental and pilot scale up projects at Bio Processing Innovation Centre and Bio Industrial Laboratories. This position carries out several complex industry projects using a variety of specialized processing equipment. The position prepares and ensures correct equipment operation, sanitation and product handling procedures are followed. The processing technologist assures that equipment used is in proper working order, and develops and trains clients in the operation of processing equipment. This position develops and follows written protocols for shipping/receiving, reviews and verifies all production records in accordance with site requirements, supervises client's activities to ensure compliance with internal and external regulations and monitor compliance for Standard Operating Procedures. Working with a team of scientists and engineers, this position is responsible for assisting clients and other team members to develop methodologies, products and processes and bring practical solutions to achieve project objectives. Additionally, this position will provide support the development, design and system integration of products and process development projects both in lab and pilot plant focusing on biomaterials, polymers and renewable packaging.

Responsibilities

Job outcomes (4-6 core results), and for each outcome, 4-6 corresponding activities:

1. Provide leadership and expertise in completing client initiated processing projects.
   Activities:
   - Ensure all requirements are addressed before, during and after processing activities.
   - Operate a wide variety of processing equipment safely and efficiently.
   - Prepare, Monitor, review and verify that Standard Operation Procedures were followed and recorded.
   - Identify appropriate technology and equipment to be used on processing line.
   - Organize and assemble equipment, prepare materials, supplies and storage required for successful completion of project.
   - Train and supervise client casual staff and contract cleaning personnel in basic equipment operation, cleaning procedures and emergency shut down procedures.
   - Ensure adherence to good manufacturing practices.
2. Work with processors, entrepreneurs, engineers and scientists on product and process development projects.
   Activities:
   - Assist in the planning and implementation of processing projects.
   - Review technical papers and equipment manuals
   - Verify that materials, equipment and services meet requirements of production process systems.
   - Operate pilot plant processing equipment and trouble identifications with an emphasis on efficient set up of production lines and post-production disassembly.
3. Ensure efficient utilization of pilot plant facilities
   Activities:
   - Organize, in conjunction with other staff, the use of storage areas.
   - Identify any equipment problems or malfunctions and report to maintenance and supervisor for remedial action.
   - Maintain and document safe operating procedures.
   - Assist in the development of project schedules, verify proper booking of resources.
   - Prepares all necessary production documents prior to commencement of processing activities
4. Provide a technology transfer function to industrial clients and their staff.
   Activities:
   - Supervise and train industrial client staff in correct, safe operation of processing equipment.
   - Train clients and client casual staff in proper good manufacturing procedures.
5. Supports Occupational Health & Safety, Quality Assurance and Natural Health Products programs at Bio-Processing Innovation Centre
   Activities:
   - Monitor and verify production process from incoming materials, processing procedures, ingredients declaration, processing records prior to production start up.
   - Review and verify production records, pre-shipment records, inventory control reports, shipping/receiving logs, pre-operation sanitation records, and in the event of non-compliance, notify QC Coordinator.
   - Monitor and authenticate procedures for ensuring occupational health & safety compliance
   - Maintain and monitor hazard assessments and standard operating procedures
   - Lead monthly inspections of work area
   - Train and ensure compliance of client staff with regards to hazard assessments and standard operating procedures

Problem Solving

Typical problems solved:

Whether development or interim processing project, addressing demands and project scope is a central challenge in this role. The ability to promptly identify capabilities issues and suggest effective solutions is crucial. With projects, technologies, and market demands in a constant state of evolution, adaptability and capacity to reinvent approaches are important in this role. Dealing with new product lines may pose unfamiliar challenges with unknown solutions. Tailoring solutions to meet unique concerns of each client demands a high level of agility to successfully overcoming this challenge. This involves staying attuned to changing landscapes, pro-actively identifying potential problems, and swiftly implementing customized solutions to ensure client satisfaction and project success.

Processing technologist plays a key role in supporting industry needs for value-added processing, elevating the role to problem-solving in a complex situation.

Position is knowledgeable in polymer/plastic/biomass fiber rheology. The position requires a breadth of knowledge to properties testing of materials. The position influences private industry in the selection of appropriate processes and supervises industry casual staff during processing.

Types of guidance available for problem solving:

Recognizing that off-the-shelf solutions may not sufficiently address diverse needs of client service projects; emphasis is on fostering innovative approaches and fresh ideas. Conducting literature reviews across various fields is crucial for drawing inspiration and discovering applicable concepts.
Considering the small team structure at BIOS, initiating round table discussions with project lead, operation manager and/or BIOS director may be required to reach informed decisions.

Direct or indirect impacts of decisions:

Outcomes have significantly influence on industry projects, as discoveries are employed for adapting or introducing new products, processes, and technologies in the Province of Alberta, and in some instances, beyond Canada's borders.

These decisions have indirect yet significant impacts on various aspects of an organization. Firstly, these decisions subtly shape organization's reputation and image. Secondly, they indirectly influence dynamics between clients, stakeholders, and staff.

The section's impact is evident through introduction of numerous new products to market, evaluation and implementation of emerging technologies, establishment of new companies, and contributing to creation of local jobs each year.

Key Relationships

Major stakeholders and purpose of interactions:

Success depends on communication between the organization and its key stakeholders. Effective communication, transparency and engagement with stakeholders can build trust and enhances organizations reputation. It is important to listen to their feedback, address their concerns and align business practices with their interests and values to sustain great relationships.

Internal:

- Section Staff: Communicate with project leads to support and collaborate on projects
- Other Staff: To liaise with other departmental staff on common goals and research/theme information services

External:

- Industry clients: To act as project leader or provide support for industry-initiated projects, identify priorities, provide information services
- Producer groups and industry organizations, private industry both large, small and research & technology organizations. External clients can range from individual entrepreneurs to multi-national corporations.
- Private sector companies, equipment suppliers, vendors, trade agencies.

Required Education, Experience and Technical Competencies

Education Level	Focus/Major	2nd Major/Minor if applicable	Designation
Diploma (2 year)	Engineering	Science	

If other, specify:

Job-specific experience, technical competencies, certification and/or training:

This position typically requires a diploma or certificate programs from recognized institutions in applied science, chemical engineering technology, materials engineering technology, nanosystems engineering technology or related programs.
4 years work experience in an industrial processing establishment, setting up, operating and disassembling processing equipment is an asset. Hands on experience in operating is critical.
Experience with operation of polymer extrusion equipment and testing equipment.
Knowledge of warehousing, shipping and receiving and a thorough understanding of acts and regulations pertinent to

processing are essential.
Good reading, writing skills, communication and interpersonal skills.
Must be prepared to obtain First aid, WHMIS, Transportation of Dangerous Goods and Forklift Operators' certification.
Valid driving license is required as position involves some travel to other locations.

Behavioral Competencies

Pick 4-5 representative behavioral competencies and their level.

Competency	Level A B C D E	Level Definition	Examples of how this level best represents the job
Creative Problem Solving	○ ◉ ○ ○ ○	Focuses on continuous improvement and increasing breadth of insight: • Asks questions to understand a problem • Looks for new ways to improve results and activities • Explores different work methods and what made projects successful; shares learning • Collects breadth of data and perspectives to make choices	This position requires understanding of projects, principles of equipment and ask question when encounter problems. Such as the extruder got plugged or materials are not feeding consistently.
Agility	○ ◉ ○ ○ ○	Works in a changing environment and takes initiative to change: • Takes opportunities to improve work processes • Anticipates and adjusts behaviour to change • Remains optimistic, calm and composed in stressful situations • Seeks advice and support to change appropriately • Works creatively within guidelines	BIOS is working with a variety of projects with industry stakeholders. Changes happen all the time such as scheduling, materials are delayed or change of project directions from the initial plan. A high degree of agility is required to manage the changes.
Drive for Results	○ ◉ ○ ○ ○	Works to exceed goals and partner with others to achieve objectives: • Plans based on past experience • Holds self and others responsible for results • Partners with groups to achieve outcomes • Aims to exceed expectations	This position is responsible for project outcomes and deliverables. Projects are required on time as scheduled.
Develop Self and Others	○ ◉ ○ ○ ○	Seeks out learning and knowledge-sharing opportunities: •Reflects on performance	Continuing learning and development is a goal for this position.

	and identifies development opportunities • Takes initiative to stay current • Shares with the team even when not asked • Actively coaches and mentors direct reports	