

Job Description Template

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|--------------------------------------|---|
| Job Title | Q&FS Technologist (Site Sterilization Expert) |
| Segment / Business Unit | Food |
| Country / Site | Canada / BFP |
| Job Function | Q&FS |
| Expected Job Level | T1 |
| Manager's Name & Position | Manmeet Kahlon / Site Q&FS Manager |
| Date | 01.13.2023 |

Job Purpose/Overview

Answer why this job is in the organization; Why this job exists (2 or 3 sentences maximum)

This position is responsible for the implementation and maintenance of thermal processes and procedures at the manufacturing site in order to achieve, maintain and audit compliance to MARS thermal processing standards and relevant governmental (city/local) regulations regarding thermal processing of shelf stable foods.

Key Responsibilities

Please list the most important and relevant responsibilities

- Ensure full compliance of Mars Global Quality Standards for thermal processing
- Design and conduct heat penetration tests using Statistical Process Control for critical factors as a means of designing to worst case based on the plant's ability to control.
- Complete analysis of Heat Penetration data in order to establish a thermal process schedule letter.
- Conduct TDHD (Temperature and Heat Distribution Testing) by analyzing and creating a report of the test situations conducted and impact to the thermal process schedule.
- Conduct deviation analysis and draft disposition release/scrap reports.
- Ensure CAPA's and PRIMPs are issued for thermal processing related deviations and drive continuous improvement.
- Maintain deviation tracker to aide in the troubleshooting of retort/control or operator training issues.
- Manage the thermal process letters by site/line (where needed)
- Assess impact to thermal processing on intended Project charter changes for ingredients, processing and packaging.
- Ensure annual retort surveys are conducted by Engineering/Maintenance.
- Liaise with maintenance & engineering staff to drive improved retort reliability.
- Ensure annual retort by-pass (i.e. raw-processed product traffic control) assessment is conducted.
- Ensure electronic system validations are conducted by appropriate personnel regarding (Yokogawa instrumentation).
- Participate and contribute to the Thermal Processing Community of Practice across the Food segment through the creation of documented practices (NEXUS).
- Responsible for local thermal processing training modules to new associates, recurring refresher training where relevant.
- Conducts T5/T6 audits against thermal standards at frequency established by the business.

- Supports and assists NPD or/ and Focus Improvement Team with new product implementations and developments.
- Represent thermal processing in site ATG meetings.
- Maintain all site thermal process specifications & operational documents in Nexus.
- Leads the Root Cause Analysis investigation of Thermal processing food safety incidents and drives effective implementation of corrective and preventative actions.
- Program retort process parameters into factory retort control systems and pilot retort
- Conduct internal audits of thermal process control records and operator data collection forms and systems with up to date thermal process letter data.
- Maintain FDA regulatory 2541 FURLS process filing submissions.
- Maintain Ellab sensors, tools and calibrations of data collection equipment.

Context and Scope

Explain how the job gets done and the way it operates within the team and with stakeholders

The (SSE) role resides within Q&FS Implementation structure at the manufacturing site. It is essential that the SSE is fully aware of the MARS Thermal Processing Standards in addition to understanding regulatory compliance (dependent on region) regarding shelf stable low acid food, acid and acidified food production.

Training and maintenance of the core competencies of thermal processing specialists (SSE) shall be obtained through external training resources (NumeriCAL, TechniCAL, The Institute of Thermal Processing Specialists, Technical University of Guelph, or Campden) including a regime of mentorship program and trainings as delivered by the Global Thermal Processing Expert over the course of the first 3 years in role and potentially beyond this time period, depending on confidence in performance. Since this position requires oversight by the Global Thermal Processing Expert (TPE) it is expected that the hiring manager reviews the SSE iTMS objectives with the TPE prior to initiating them for Future Year.

SSE audits and RISK Assessments will identify gaps to the MARS thermal processing standards and procedures, CAPAs/PRIMPs will escalate these situations to final resolution to issues identified. Cases where individual operator deficiencies are determined to be cause of failure, appropriate training actions will commence. Deviations and dispositions will be tracked for continuous improvement efforts.

Maintenance to thermal standards is accomplished by the SSE participating in regional project management process (QuEST/PPM). With this the SSE's will be able to assess impact to the current product thermal processes for intended changes of ingredient, package or unit processes through heat penetration studies (if warranted). New sterilization and pasteurization equipment will be qualified by SSEs at installation and then maintained every 3 years. Products where produced regulated by FDA require interaction with FDA FURLS system for maintaining thermal process filings. In addition, plant documentation and control systems must be supplied with correct paperwork and cook recipes, along with critical factor specifications.

New product thermal processes will be a collaborative effort between Process Engineers, Global Thermal Processing Expert and the SSE for the affected sites, or target regions.

Estimation is less than 20% travel (including domestic and international trips) to get the job done.

Job Specifications/Qualifications

State the preferred education, knowledge, skills and experience this position requires. State the physical and/or mental requirements for the role (e.g. stand for x hours, lift x weight, concentration on repetitive tasks).

Note: May differ from the current job holder's own skills and experience.

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| <p>Education & Professional Qualifications</p> | <ul style="list-style-type: none"> • Technical degree, preferably a B.S. Degree in Science, (Mechanical, Chemical Engineering, Food Science) or adjacent technological studies (i.e. Microbiology, Biotechnology, Chemistry, Meat Science) • A Master's Degree in Science, (Mechanical, Chemical Engineering, Food Science) or adjacent technological studies (i.e. Microbiology, Biotechnology, Chemistry, Meat Science) • Successfully attended a FDA sponsored Better Process Control School. |
| <p>Knowledge / Experience</p> | <ul style="list-style-type: none"> • 2+ years in Food Manufacturing environment. • Familiarity of food manufacturing equipment and processes for all temperature states (ambient, refrigerated, frozen). • Regulatory audit compliance (FDA, CFIA, GFSI) • Awareness of shelf stable food regulations for region (FDA, CFIA) • Statistics – Microsoft Excel, Minitab, PowerBI, etc. • Ability to use Microsoft Word, Excel, and PowerPoint for effective communications • Comfortable with administering training sessions • Advanced thermal process calculation software: Ellab, Calsoft, NumeriCAL, Thermodl • Packaging material seal performance and its relevance to food safety. • Familiarity with microbiology and food safety of canned foods – Better Process School Training |

Key Mars Leadership Competencies (4-6)

Refer to the [Mars Talent and Development Library](#)

Note: competencies selected should be job related

- Integrity and Trust
- Action Oriented
- Problem Solving
- Internal & External Networks
- Approachability
- Effective communication

Key Functional Competencies & Technical Skills (3-5)

Refer to the [Mars Talent and Development Library](#)

Distinguish any preferred competencies at the end of the list & notate them as “preferred”

- Practices Excellence in Quality – Product Quality Custodian
- Practices Excellence in Quality - Risk and Opportunity Identification
- Leverages Connections – Influencing
- Leverages Connections – Internal & External Network

| Relevant Quantitative and Budget Information | |
|---|--|
| Financial / Budget Impact <i>(Indicate how much money this role will manage. Useful quantities include annual budgets, project costs, annual revenue, sales turnover, etc.)</i> | N/A |
| Staff | |
| Team Size <i>(All direct and indirect reports.)</i> | 3 peers |
| Other | <p>Hiring Manager</p> <p>Manmeet Kahlon</p> <p>[Mobile]: 1-416-433-0999</p> <p>manmeet.kahlon1@effem.com</p> <p>Adjacent/Support Manager</p> <p>Michael Ament</p> <p>[Mobile]: 1-949-228-0241</p> <p>michael.ament@effem.com</p> |