Position Description Form (PDF)

College: **Fanshawe College**

Incumbent: Vacant
Position ID: **FMEHVCTC2SF**
Position Title: **HVAC Technician – Gasfitter 2**
Department: **Maintenance Services and Utilities**

Payband: I

Appointment: **X**12 Month 11 Month 10 Month 9 Month Other
Hours: 40

Supervisor's Name and Title: **Manager, Maintenance Services and Utilities**

Date Completed by Supervisor:
Date Reviewed with Incumbent:

Notes: **Position re-evaluated May 2012 as a result of Award of December 2011, changed from "H" to "I". Position re-evaluated November, 2009.**

Approved by Human Resources: _____
Date:_____

Signature of Incumbent: _____ Date: _____
(Indicates incumbent has read and understood PDF)

Immediate Supervisor: _____ Date: _____

Instructions for Completing the PDF

1. Read the form carefully before completing any of the sections.
2. Answer each section as completely as you can, based on the typical activities or requirements of the position and not on exceptional or rare requirements.
3. If you have any questions, refer to the document entitled "A Guide on How to Write Support Staff Position Description Forms" or contact your Human Resources representation for clarification.
4. Ensure the PDF is legible.
5. Responses should be **straightforward and concise using simple factual statements.**

Position Summary

Provide a concise description of the overall purpose of the position.

Under general direction of the Manager, provides rapid response to environmental temperature complaints and HVAC/Refrigeration system breakdowns. Installs and maintains refrigeration, air-conditioning and heating systems.

Duties and Responsibilities

Indicate as clearly as possible the significant duties and responsibilities associated with the position. Indicate the approximate percentage of time for each duty. Describe duties rather than detailed work routines.

	Approximate % of time annually*
Performs maintenance, repairs and troubleshooting on all refrigeration, heating, ventilation and air conditioning equipment up to and including 400,000 BTU	**30%**
Responds to environmental complaints from the college population.	**35%**
Programming, troubleshooting and energy conservation tasks on the college building automation systems.	**10%**
Prepares layout of equipment and services from general information provided on work orders or drawings and produces detailed estimates and schedules necessary to complete project. Provides assistance to other trades people and contractors. Inspects new installations to ensure compliance with codes and standards.	**10%**
Performs sheet metal fabrication and installations.	**5%**
Assists with emergencies such as fire. Contributes HVAC expertise as a member of the Emergency Response Team.	**5%**
Other related duties including (but not limited to) light bulb changes, ballast changes and ceiling tile replacement.	**5%**

* To help you estimate approximate percentages:

½ hour a day is 7%	1 hour a day is 14%	1 hour a week is 3%
½ day a week is 10%	½ day a month is 2%	1 day a month is 4%
1 week a year is 2%		

1. Education

A. Check the box that best describes the **minimum** level of **formal** education that is required for the position and specify the field(s) of study. Do not include on-the-job training in this information.

☐ Up to High School or equivalent	☐ 1 year certificate or equivalent	☐ 2 year diploma or equivalent
☒ Trade certification or equivalent	☐ 3 year diploma / degree or equivalent	☐ 3 year diploma / degree plus professional certification or equivalent
☐ 4 year degree or equivalent	☐ 4 year degree plus professional certification or equivalent	☐ Post graduate degree or (e.g. Masters) or equivalent
☐ Doctoral degree or equivalent		

Field(s) of Study:

Air Conditioning/Refrigeration Certificate of Qualification (313A)

B. Check the box that best describes the requirement for specific course(s), certification, qualification, formal training or accreditation in addition to and not part of the education level noted above and in the space provided specify the additional requirement(s). Include only the requirement that would typically be included in the job posting and would be acquired prior to the commencement of the position. Do not include courses that are needed to maintain a professional designation.

☐ No additional requirements	
☐ Additional requirements obtained by course(s) of a total of 100 hours or less	
☒ Additional requirements obtained by course(s) of a total between 101 and 520 hours	**Gas technician 2 certificate. 500 hours of classroom training required plus work experience.** **Ozone Depletion certificate (8 to 10 hours)**
☐ Additional requirements obtained by course(s) of a total of more than 520 hours	

2. Experience

Experience refers to the minimum time required in prior position(s) to understand how to apply the techniques, methods and practices necessary to perform this job. This experience may be less than experience possessed by the incumbent, as it refers only to the minimum level required on the first day of work.

Check the box that best captures the typical number of year of experience, in addition to the necessary education level, required to perform the responsibilities of the position and, in the space provided, describe the type of experience. Include any experience that is part of a certification process, but only if the work experience or on-the-job training occurs after the conclusion of the educational course or program.

☐ Less than one (1) year	
☐ Minimum of one (1) year	
☐ Minimum of two (2) years	
☐ Minimum of three (3) years	
☒ Minimum of five (5) years	**Industrial and commercial refrigeration, air conditioning, heating and building automation system experience to enable independent exercise of technical skills.**
☐ Minimum of eight (8) years	

3. Analysis and Problem Solving

This section relates to the application of analysis and judgement within the scope of the position.

The following charts help to define the level of complexity involved in the analysis or identification of situations, information or problems, the steps taken to develop options, solutions or other actions and the judgement required to do so.

Please provide up to three (3) examples of analysis and problem solving that are regular and recurring and, if present in the position, up to two (2) examples that occur occasionally:

	#1 regular & recurring
Key issue or problem encountered.	**Solving electrical/mechanical problems on complicated equipment including roof top heating and cooling units, large central chiller plants and large boiler plants.**
How is it identified?	**Facility users report malfunction or maintenance activities reveal problem.**

Is further investigation required to define the situation and/or problem? If so, describe.	**Schematics/blueprints must be consulted to map out circuits and power sources and identify the likely source of the problem. Tests may be conducted at various points in the circuit to determine where the problem originates. Incumbent may have to investigate several different related systems to determine where the problem originates.**
Explain the analysis used to determine a solution(s) for the situation and/or problem.	**Uses technical expertise and knowledge of Ontario Hydro Codes, Natural gas codes and mechanical refrigeration codes to determine code-compliant resolution of issue.**
What sources are available to assist the incumbent finding solution(s)? (e.g.: past practices, established standards or guidelines).	**Various codes can be accessed to ensure repairs are code compliant. Past Practice.**

3. Analysis and Problem Solving

#2 regular & recurring

Key issue or problem encountered	**Area is too hot/cold.**
How is it identified?	**Customer generated complaint.**
Is further investigation required to define the situation and/or problem? If so, describe.	**Incumbent must investigate to determine if problem is caused by Building Automation System, area fan system or building heating/cooling systems malfunctions. Investigates new or different related systems to determine where the problem originates.**
Explain the analysis used to determine a solution(s) for the situation and/or problem.	**The incumbent analyzes the data gathered about the various systems and decides to initiate repairs or make automation programming adjustments.**
What sources are available to assist the incumbent finding solution(s)? (e.g.: past practices, established standards or guidelines).	**Incumbent can refer to past practice and customer history if no breakdown is detected and adjust automation programming accordingly.**

#3 regular & recurring

Key issue or problem encountered	**Interprets complex data and drawings such as piping diagrams and duct design layout for repairs and installation of new hvac systems.**
How is it identified?	**Requirement arises as part of project or work order allocated to the incumbent.**

Is further investigation required to define the situation and/or problem? If so, describe.	**Drawings must be checked for completeness and currency. If inconsistencies arise with indoor environmental quality, tests are conducted to understand how the system is actually functioning which is then compared to design criteria. Recommendations are then passed to the project coordinators.**
Explain the analysis used to determine a solution(s) for the situation and/or problem.	**Drawings are independently interpreted according to Code and technical standards and practices.**
What sources are available to assist the incumbent finding solution(s)? (e.g.: past practices, established standards or guidelines).	**Ontario Hydro, Refrigeration and Natural gas Codes, schematics/blueprints, technical standards and practices. Past Practice.**

3. Analysis and Problem Solving

#1 occasional (if none, please strike out this section)

Key issue or problem encountered	**Automation panel computer processor failure.**
How is it identified?	**Customer generated complaint or discovered on automation maintenance checks.**
Is further investigation required to define the situation and/or problem? If so, describe.	**Incumbent must determine if a communication component is the cause, a database is corrupt or the processor has failed etc.**
Explain the analysis used to determine a solution(s) for the situation and/or problem.	**Uses troubleshooting skills and checks components until problem installed. eg. check data link integrity, install new database etc.**
What sources are available to assist the incumbent finding solution(s)? (e.g.: past practices, established standards or guidelines).	**Past Practice.** **IT if problem is data link related.**

#2 occasional (if none, please strike out this section)

Key issue or problem encountered	**Alter automation programs to achieve energy conservation.**
How is it identified?	**Work order from supervisor.**

Is further investigation required to define the situation and/or problem? If so, describe.	**Room schedules must be accessed, office and weekend schedules determined and weather forecasts must be assessed.** **Customers may be consulted to determine maximum or minimum temperatures that will be tolerated.**
Explain the analysis used to determine a solution(s) for the situation and/or problem.	**Incumbent creates equipment run schedules to coincide with room occupancy.** **Alters automation program to reduce/increase room/building temperatures to maximize energy conservation while maintaining customer satisfaction.**
What sources are available to assist the incumbent finding solution(s)? (e.g.: past practices, established standards or guidelines).	**Programming manuals.** **Programming training with automation supplier.** **Knowledge of customer trends and typical weather patterns. Past Practice.**

4. Planning/Coordinating

Planning is a proactive activity as the incumbent must develop in advance a method of acting or proceeding, while coordinating can be more reactive in nature.

Using the following charts, provide up to three (3) examples of planning and/or coordinating that are regular and recurring and, if present in the position, up to two (2) examples that occur occasionally:

	#1 regular & recurring
List the project and the role of the incumbent in this activity.	**Co-ordinates materials and contractors to effect installations and upgrades ensuring minimal impact on the end users.**
What are the organizational and/or project management skills needed to bring together and integrate this activity?	**The ability to identify and organize material purchases to cause minimal disruption to others (e.g. lecturers and students) and to maximize use of the contractors' time on site.**
List the types of resources required to complete this task, project or activity.	**Electrical/mechanical supplies and equipment, space occupancy schedules.**
How is/are deadline(s) determined?	**Work orders issued will generally indicate priority. The incumbent reviews work orders to identify potentially dangerous situations and adjusts own priorities accordingly.**

Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	**Incumbent consults with the Manager and/or project coordinator when changes are required.**

4. Planning/Coordinating

#2 regular & recurring

List the project and the role of the incumbent in this activity.	**Co-ordinating own schedule and materials to carry out the day's assigned work orders, causing minimal impacts on end users.**
What are the organizational and/or project management skills needed to bring together and integrate this activity?	**Effective co-ordination of locations, materials, diagrams to use time effectively. Co-ordination with end users to minimize disruption while maintenance is carried out.**
List the types of resources required to complete this task, project or activity.	**Work orders, space occupancy schedules, materials (may require ordering), equipment.**
How is/are deadline(s) determined?	**Generally assigned with work order but incumbent can prioritize own work orders.**
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	**Incumbent alters own priorities when safety issue arise. Incumbent prioritizes day's activities. Facilities clerk may issue more urgent work orders. Otherwise Manager can make changes to priorities if necessary.**

#3 regular & recurring

List the project and the role of the incumbent in this activity.	
What are the organizational and/or project management skills needed to bring together and integrate this activity?	
List the types of resources required to complete this task, project or activity.	
How is/are deadline(s) determined?	
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	

4. Planning/Coordinating

#1 occasional (if none, please strike out this section)

List the project and the role of the incumbent in this activity.	**Co-ordinating multi day installation projects and repairs. Some projects may involve organizing the contribution of contractors and/or other college trades people.**
What are the organizational and/or project management skills needed to bring together and integrate this activity?	**Timing and organizing the sequence of activities to maximize effective use of time and minimize disruption to others and other electrical/mechanical services. Balancing urgent maintenance requirements arising during the course of the project.**
List the types of resources required to complete this task, project or activity.	**Contractors, equipment, materials, space occupancy schedules.**
How is/are deadline(s) determined?	**As part of the project planning process the incumbent provides input to the Manager to assist with planning and priority determination.**
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	**The incumbent identifies issues arising during the project that may impact on the project plan. Where possible adjusts project activities to maintain deadlines despite the need to address the issues. Priority changes that will impact the project significantly are decided by the Manager in consultation with the incumbent.**

#2 occasional (if none, please strike out this section)

List the project and the role of the incumbent in this activity.	
What are the organizational and/or project management skills needed to bring together and integrate this activity?	
List the types of resources required to complete this task, project or activity.	
How is/are deadline(s) determined?	
Who determines if changes to the project or activity are required? And who determines whether these changes have an impact on others? Please provide concrete examples.	

5. Guiding/Advising Others

This section describes the **assigned responsibility** of the position to guide or advise others (e.g. other employees, students). Focus on the actions taken, (rather than the communication skills) that directly assist others in the performance of their work or skill development.

Though Support Staff cannot formally "supervise" others, there may be a requirement to guide others using the incumbent's job expertise. This is beyond being helpful and providing ad hoc advice. It must be an assigned responsibility and must assist or enable others to be able to complete their own tasks.

Check the box(es) that best describe the level of responsibility assigned to the position and provide an example(s) to support the selection, including the positions that the incumbent guides or advises.

Regular & Recurring	Occasional	Level	Example
☒	☐	Minimal requirement to guide/advise others. The incumbent may be required to explain procedures to other employees or students.	**Normal assistance to new incumbents and peers.**
☒	☐	There is a need for the incumbent to demonstrate correct processes/ procedures to others so that they can complete specific tasks.	**Provides guidance to assisting general maintenance technicians with semi-skilled maintenance related tasks when required. Assisting contractors in understanding schematics/blueprints, particularly when documentation appears incomplete or out of date.**
☐	☐	The incumbent recommends a course of action or makes decisions so that others can perform their day-to-day activities.	
☐	☐	The incumbent is an active participant and has ongoing involvement in the progress of others with whom he/she has the responsibility to demonstrate correct processes/procedures or provide direction.	
☐	☐	The incumbent is responsible for allocating tasks to others and recommending a course of action or making necessary decisions to ensure the tasks are completed.	

6. Independence of Action

Please illustrate the type of independence or autonomy exercised in the position. Consideration is to be given to the degree of freedom and constraints that define the parameters in which the incumbent works.

What are the instructions that are typically required or provided at the beginning of a work assignment?	
Regular and Recurring	Occasional (if none, please strike out this section)
Work orders and maintenance projects with details of issues and goals are issued prior to any work undertaken.	

What rules, procedures, past practices or guidelines are available to guide the incumbent?	
Regular and Recurring	Occasional (if none, please strike out this section)
The incumbent generally organizes and undertakes assignments independently, within the Colleges health and safety policies and Ontario code requirements. Past Practice.	

How is work reviewed or verified (e.g.: feedback from others, work processes, Supervisor)?	
Regular and Recurring	Occasional (if none, please strike out this section)
Supervisors periodically check work. If maintenance is ineffective end users report further problems. Inspectors may check work orders on a random basis.	

6. Independence of Action

Describe the type of decisions the incumbent will make in consultation with someone else other than the Supervisor?	
Regular and Recurring	Occasional (if none, please strike out this section)
Consults with peers and/or contractor to agree on blueprints for installations	

Describe the type of decisions that would be decided in consultation with the Supervisor.	
Regular and Recurring	Occasional (if none, please strike out this section)
Planning layouts for major installations or upgrade work.	

Describe the type of decisions that would be decided by the incumbent.	
Regular and Recurring	Occasional (if none, please strike out this section)
Materials to be used, location of equipment, tests to be performed and other technical matters are carried out independently on a daily basis.	

7. Service Delivery

This section looks at the service relationship that is an assigned requirement of the position. It considers the required manner in which the position delivers service to customers. It is not intended to examine the incumbent's interpersonal relationship with those customers and the normal anticipation of what customers want and then supplying it efficiently. It considers how the request for service is received and the degree to which the position is required to design and fulfil the service requirement. A "customer" is defined in the broadest sense as a person or groups of people and can be internal or external to the College.

In the table below, list the key service(s) and its associated customers. Describe how the request for service is received by the incumbent, how the service is carried out and the frequency.

Information on the service		Customer	Frequency (D, W, M. I)*
How is it received?	How is it carried out?		
End users call to report problems/malfunctions. Clerk takes work order and allocates it to incumbent.	**The incumbent determines the appropriate method and materials to carry out work.**	**Facility users.**	**D**
Manager determines upgrade requirement and allocates project to incumbent.	**Incumbent draws up sketch and plan for installation and carries out agreed work based on plans.**	**Facility users.**	**M**

* D = Daily W = Weekly M = Monthly I = Infrequently

8. Communication

In the table below indicate the type of communication skills required to deal effectively with others. Be sure to list both verbal (e.g. exchanging information, formal presentations) and written (e.g. initiate memos, reports, proposals) in the section(s) that best describes the method of communication.

Communication Skill/Method	Example	Audience	Frequency (D, W, M ,I)*
Exchanging routine information, extending common courtesy.	**Arranging repairs to fit schedules of others with minimal disruption with end users.** **Providing schematics/blue prints and other information to contractor.**	**Facility users.** **Contractors.**	**D**
Explanation and interpretation of information or ideas.	**Conferring on complex wiring/mechanical problems, programming issues and/or installation plans. Provides explanation to assisting general maintenance technicians with semi-skilled maintenance related tasks.**	**Peers, managers and contractors.**	**W**
Imparting technical information and advice.			
Instructing or training.			
Obtaining cooperation or consent.			
Negotiating.			

* D = Daily W = Weekly M = Monthly I = Infrequently

9. Physical Effort

In the tables below, describe the type of physical activity that is required on a regular basis. Please indicate the activity as well as the frequency, the average duration of each activity and whether there is the ability to reduce any strain by changing positions or performing another activity. Activities to be considered are sitting, standing, walking, climbing, crouching, lifting, and/or carrying light, medium or heavy objects, pushing, pulling, working in an awkward position or maintaining one position for a long period.

Physical Activity	Frequency (D, W, M, I)*	Duration			Ability to reduce strain		
		< 1 hr at a time	1 - 2 hrs at a time	> 2 hrs at a time	Yes	No	N/A
Walking, climbing.	**D**	☒	☐	☐	☒	☐	☐
Heavy lifting, pulling.	**D**	☒	☐	☐	☒	☐	☐
Working from ladders, lifts.	**D**	☐	☒	☐	☒	☐	☐
Light lifting.	**D**	☒	☐	☐	☒	☐	☐

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If lifting is required, please indicate the weights below and provide examples.

- ☒ Light (up to 5 kg or 11 lbs)
- ☒ Medium (between 5 to 20 kg or 11 to 44 lbs)
- ☒ Heavy (over 20 kg or 44 lbs)

Tools, parts.
Ladders, motors, refrigerant bottles, pipe.
Compressors, heatpumps, motors.

10. Audio Visual Effort

Describe the degree of attention or focus required to perform tasks taking into consideration:

- the audio/visual effort and the focus or concentration needed to perform a task and the duration of the task, including breaks (e.g.: up to 2 hours at one time including scheduled breaks)
- impact on attention or focus due to changes to deadlines or priorities
- the need for the incumbent to switch attention between tasks (e.g.: multi-tasking where each task requires focus or concentration)
- whether the level of concentration can be maintained throughout the task or is broken due to the number of disruptions

Provide up to three (3) examples of activities that require a higher than usual need for focus and concentration.

Activity #1	Frequency (D, W, M, I)*	Average Duration		
		Short < 30 mins	Long up to 2 hrs	Extended > 2 hrs
Visual and tactile concentration and attention to detail to complete work orders, sometimes working with very small components.	**W**	☐	☒	☐
Can concentration or focus be maintained throughout the duration of the activity? If not, why? ☒ Usually ☐ No				

Activity #2	Frequency (D, W, M, I)*	Average Duration		
		Short < 30 mins	Long up to 2 hrs	Extended > 2 hrs
Trouble shoot live system (most work not on live systems).	**M**	☒	☐	☐
Can concentration or focus be maintained throughout the duration of the activity? If not, why? ☒ Usually ☐ No				

Activity #3	Frequency (D, W, M, I)*	Average Duration		
		Short < 30 mins	Long up to 2 hrs	Extended > 2 hrs
Trouble shoot/modify building automation programs.	**W**	☐	☒	☐
Can concentration or focus be maintained throughout the duration of the activity? If not, why? ☒ Usually ☐ No				

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11. Working Environment

Please check the appropriate box(es) that best describes the work environment and the corresponding frequency and provide an example of the condition.

Working Conditions	Examples	Frequency (D, W, M, I)*
☐ acceptable working conditions (minimal exposure to the conditions listed below)		
☒ accessing crawl spaces/confined spaces	**Working inside boilers, fan cabinets.**	**M**
☒ dealing with abusive people	**Verbal abuse from upset customers.**	**M**
☐ dealing with abusive people who pose a threat of physical harm		
☒ difficult weather conditions	**Outdoor hvac repairs.**	**D**
☒ exposure to extreme weather conditions	**Outdoor hvac repairs.**	**M**
☒ exposure to very high or low temperatures (e.g. freezers)	**Heating system repairs, walk in freezer repairs.**	**W**
☒ handling hazardous substances	**Refrigerants, chemical cleaners.**	**W**
☒ smelly, dirty or noisy environment	**Mechanical rooms.**	**D**
☒ travel	**Satellite campuses.**	**M**
☐ working in isolated or crowded situations		
☒ other (explain)	**Situations requiring management of personal safety and use of protective equipment to avoid injury:** **- working around live wiring** **- hot areas, boiler rooms, kitchens, auto shops, explosion rooms.**	**D**

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