Tampa Electric Safety Management System Program

"RESPIRATORY PROTECTION PROGRAM"

Developed by: TEC Safety	Approved by: VP, Safety and Security	TECO TAMPA ELECTRIC AN EMERA COMPANY

Table of Contents

OSHA RESPIRATORY PROTECTION STANDARD (29 CFR 1910.134)

1. Purpose

The purpose of this program is to provide the framework for an effective Respiratory Protection Program. Implementation of this program allows for respirators to be used in a manner that provides for the safety and well-being of our employees, as well as for contractors whose work duties are covered by this program as outlined in individual work agreements.

2. Introduction

While the company strives to eliminate atmospheric hazards by the implementation of engineering controls, there are instances when the use of respirators is required.

The respiratory protection program incorporates medical information regarding the risks of airborne contaminants, technology and relevant government regulations.

This program contains the following elements:

- Identification of those individuals responsible for the implementation of this program
- Resources for the provision of employee training, and its frequency
- The means by which medical evaluations will be provided to those employees who arerequired to wear respirators
- Voluntary respirator usage requirements
- A process for addressing the selection, and use of respirators to be used for specific hazards
- Instructions for the proper fit-testing of respirators
- Information regarding the proper inspection, maintenance, cleaning and storage of respirators
- Periodic program evaluations
- Recordkeeping and documentation

3. Responsibility

Each Station Director is responsible for the implementation and maintenance of the Respiratory Protection Program.

The Joint Departmental Committee Safety Programs is responsible for reviewing, maintaining and revising this program as necessary. Responsibilities supporting this objective may be assigned to others as designated.

All Personnel (employees, contractors, and visitors) are responsible for using respiratory protection equipment according to the designed purpose and within the requirements of this program. Prior to use, inspect all respiratory protection equipment and dispose of damaged or defective equipment according to station policies.

4. Employee Training

Target Audience – Tampa Electric Employees who are required to use respirators.

Frequency – Initial training shall be provided to each affected employee prior to the assignment of tasks requiring the use of respiratory protection equipment. Refresher training is required annually.

Methods – Training shall be accomplished through Computer-Based Training (CBT), by PowerPoint presentation with video, or other training materials determined adequate by the Safety Department.

At a minimum, the content of the training shall include:

- Instructions on selecting, fitting, use, care, inspection and maintenance of respirators
- The reason why the respirator is necessary
- The limitations and capabilities of the respirator
- How to properly put on and take off the respirator
- How to recognize medical signs and symptoms that may prevent the effective use of the respirator
- The requirements of the respirator standard
- How to use the respirator effectively, including situations in which the respirator malfunctions

Documentation – All training will be documented electronically in Cority. Classroom training will require the attendees to sign a roster and that information will later be transferred into Cority. When Computer Based Training is used, the training may be documented in the separate CBT program database or transferred into Cority, where practical.

5. Hazard Evaluation / Respirator Selection & Respirator Use

1. All respirators used at Tampa Electric shall be NIOSH-Certified.
2. To determine which type of respirator is required consult the Respirator Selection Guide, APPENDIX C, for each task where respiratory protection may be required.
3. Respiratory protection is required for those operations and tasks where airborne contaminant concentrations exceed, or may be expected to exceed, established Occupational Exposure Limits (PELs or TLVs). Additionally, respiratory protection may be required when deemed prudent by either the Program Administrator or the Safety department.
4. Additional hazard evaluations shall be performed whenever there are process changes, or introductions/eliminations of materials that may require a change in the use of respiratory protection.
5. If additional information is needed during the hazard evaluation/respirator selection process, the individual respirator user may consult the Program Administrator or Safety Department.
6. Employees that are HAZMAT trained and a member of an emergency response team shall not have facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function. Additionally, any employee that is participating in a respirator fit-test shall not have facial hair that impedes the sealing surface of the respirator.
7. Employees that are assigned a task where a respirator is required shall not have facial hair that comes between the sealing surface of the facepiece and the face or that interferes with valve function prior to starting the work.
8. If an employee wears corrective glasses or goggles or other personal protective equipment, the employee shall ensure that such equipment is worn in a manner that does not interfere with the seal of the respirator facepiece to their face.

6. Voluntary Respirator Use

Employees who wish to use respirators and whose jobs do not require the use of respirators must be provided with a copy of the information contained in OSHA 29 CFR 1910.134, APPENDIX D. This information can be found in this procedure's Voluntary Respirator Use form, APPENDIX D.
Tampa Electric permits the voluntary use of respirators for employees. Voluntary use is defined as any use of a respirator not required under the OSHA standard. For example, an employee may choose to wear a respirator while sweeping dust. This exposure is likely to be well below the OSHA permissible exposure limit. As a result, in this instance, respirator usage would be voluntary.
In these instances, additional respirator training, fit-testing or medical evaluators are not required. However, the Program Administrator must provide APPENDIX D to the employee for signature, and record of this shall be maintained.

7. Medical Evaluation

COMBI (Comprehensive Occupational Medicine for Business and Industry) is the preferred provider for all physical examinations covered by this program. COMBI provides Tampa Electric with comprehensive medical services including the provision of the company Medical Director. Each employee considered for inclusion in the Respiratory Protection Program must be medically evaluated and cleared by the Medical Director and Energy Supply Nurse Practitioner before a fit test is performed and respiratory protection issued.

The medical evaluation shall be provided at no cost to the employee. All details regarding respirator user medical examinations may be found in the Tampa Electric Medical Examination Program. It should be noted that employees not medically qualified to wear respirators shall not be assigned tasks requiring the use of respirators.

Additional medical evaluations will be provided when:

1. The employee reports medical signs or symptoms which are related to his/her ability to wear the respirator
2. The Medical Director or Energy Supply Nurse Practitioner informs the Program Administrator that an employee needs re-evaluation
3. The Medical Director or Energy Supply Nurse Practitioner makes the determination that additional medical evaluations may be prudent. Such determinations may be made based upon observation of employees, changes in workplace conditions or any other environmental factors which may affect the employee's ability to effectively wear respiratory protection.

8. Fit Testing

Fit testing is conducted to assess the adequacy of the respiratory protection equipment to properly seal to the employee's face. Employees will be properly fit-tested prior to being assigned to perform tasks requiring the use of a respirator. Any employee that is participating in a respirator fit-test shall not have facial hair that impedes the sealing surface of the respirator. Quantitative fit testing will be the preferred method of testing and shall be used for all tight-fitting facepieces. Qualitative fit testing shall be performed on all “filtering facepieces” (dust masks).

Fit testing will be done initially upon employee assignment to an area where respirators are required and at least annually thereafter. All tight-fitting respirators (negative and positive pressure) will be fit tested. Positive pressure tight-fitting respirators will be fit tested in the negative pressure mode. Repeat fit testing is required if the respirator user reports or the Program Administrator makes physical observation of change in the employee’s physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery or an obvious change in body weight.

All employee fit test records will be maintained in Cority. Contractors are required to maintain fit testing records.

Qualitative Fit Test Protocol

Qualitative fit testing in Tampa Electric is performed using "Bitrex" (denatonium benzoate) which is a bitter solution.

The qualitative fit testing protocol followed shall be as established in 29 CFR 1910.134, APPENDIX A – Bitrex Solution Aerosol Fit Test Protocol.

Quantitative Fit Test Protocol

Quantitative fit testing in Tampa Electric is performed using an OHD Fit Tester 3000 Controlled Negative Pressure (CNP) test instrument.

The quantitative fit testing protocol followed shall be as established in 29 CFR 1910.134, APPENDIX A - CNP REDON Fit Test Protocol.

9. Inspection / Maintenance / Cleaning / Storage

General

The Tampa Electric Respiratory Protection Program includes periodic inspections, maintenance, cleaning, and storage. To minimize the implementation and administration efforts, disposable respirators have been made available.

Inspection / Maintenance

Respirator users shall inspect their respirators before and after each use. Defective respirators shall be removed from service and repaired or discarded.

Repairs or adjustments to respirators shall be made only by a person trained to perform such services with approved parts.

Routine respirator inspections shall include the following:

1. A check of respirator function (fit check)

2. Tightness of connections

3. Conditions of the various parts, including but not limited to:

   - Facepiece
   - Head straps
   - Valves
   - Cartridges
   - Filters

4. A check of the elastomeric parts for pliability and signs of deterioration.

Cleaning / Storage

1. Respirators not discarded after use shall be cleaned in accordance with the manufacturer's instructions.

2. Respirators used in fit testing and training, or issued to more than one person, shall be cleaned and disinfected before each use.

3. Respirators not discarded after use shall be stored in a suitable container (sealed plastic bag) away from areas of contamination. The storage location shall be an area protected from sunlight, dust, heat, cold, moisture and damaging chemicals and stored to prevent deformation on the facepiece and exhalation valve.

10. Periodic Program Evaluation

The Program Administrator is responsible for periodically performing evaluations of compliance with the elements outlined in this document so that the effectiveness of the program may be maintained.

11. Documentation and Recordkeeping

The Program Administrator is responsible for maintenance of all records and documentation related to the Respiratory Protection Program.

The following documentation must be maintained by Tampa Electric for each employee's length of employment plus 30 years:

- Employee Medical Files

The following documentation must be maintained by Tampa Electric for as long as the employee is covered under the Respiratory Protection Program:

- Voluntary respirator use forms
- Employee Training Record
- Respirator Fit Test Record

12. Record of Revisions

Summary of Revisions	Authorized By	Date of Authorization
Applied updated formatting and added reference number to reflect ES numbering system.	ES JDC	December 22, 2025

13. Appendix

Appendix A –Glossary

(Page 1 of 4)

Air-Purifying Respirator - A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Allowable Limit - The maximum concentration of a substance in air that is permitted by regulation or voluntary standards to protect employee health. These concentrations may be expressed in terms of an 8-hour time-weighted average, a 15-minute short term average or as an instantaneous upper ceiling limit. An example is the OSHA permissible exposure limits (PEL).

Canister or Cartridge - A container with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.

CFR - Code of Federal Regulations.

CNP – Controlled Negative Pressure.

Dusts - Solid particles generated by handling, crushing, grinding, or rapid impact, which do not diffuse in air, but settle under the influence of gravity.

Employee Exposure - Exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

Filter or Air Purifying Element - A component used in respirators to remove solid or liquid aerosols from the inspired air.

Filter Classification - NIOSH certifies three classifications of particulate filters which are N, R, and P series. The N type is not resistant to oil. The R type is resistant to oil and the P type is oil proof. There are three levels of efficiency which are 95%, 99% and 100%. For example, a P100 type respirator is oil proof and has an efficiency of 100%.

Filtering Facepiece (Dust Mask) - A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Fit Check - An action conducted by the respirator user to determine if the respirator is properly seated to the face.

Fit Factor - A quantitative estimate of the fit of a particular respirator to a specific individual, and typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

Appendix A –Glossary

Fit Test - The use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual. See also Qualitative fit test (QLFT) and Quantitative fit test (QNFT)

Fume - Differs from dust only in the way it is generated and in its particle size. Dust normally involves a wide range of particle sizes that are the result of some mechanical action, such as crushing or grinding. A fume consists of extremely small particles, less than a micron (µm) in diameter, and is generated by processes such as combustion, condensation, and sublimation.

Gas - A formless fluid that completely fills its container and whose exerted pressure is the same in all directions.

Grade D Breathing Air - OSHA requires that supplied air respirators provide Grade D breathing air. Grade D breathing air contains <10 ppm CO, <1000 CO2, <5 mg/m3 oil, and lack of noticeable odor.

Hazardous Atmosphere - An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:

1. Flammable gas, vapor, mist in excess of 10 percent of its lower explosive limit (LEL);

2. Airborne combustible dust at a concentration that meets or exceeds its LEL;

3. Atmospheric oxygen concentration below 19.5 percent or above 23.5 percent.

4. Atmospheric concentration of a substance which exceeds the permissible exposure limit (PEL) or results in an alarm of the atmospheric testing equipment.

Immediately Dangerous to Life or Health (IDLH) - An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

Micron - A unit of length equal to approximately 1/25,000 of an inch. A person with normal eye sight can see dust particles as small as 50 µm. Respirable dust (below 10 µm) cannot be seen without the aid of a microscope. A typical rain drop is approximately 2,000 µm in size.

Negative Pressure Respirator (Tight Fitting) - A respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

Appendix A –Glossary

(Page 3 of 4)

Nuisance Dust - Dust with a long history of little adverse effect on the lungs; does not produce significant organic disease or toxic effect when exposures are kept at reasonable levels.

Occupational Health and Safety Administration (OSHA) - The Federal or State agency with authority to issue and enforce workplace health and safety regulations.

Oxygen Deficient Atmosphere - An atmosphere with an oxygen content below 19.5% by volume.

Particle - A small discrete mass of solid or liquid matter.

Particle Size - The measured dimension of liquid or solid particles, usually in microns.

Particulate - A particle of solid or liquid matter.

PEL - Permissible Exposure Limit. The maximum amount of an airborne concentration of a material that an employee may be exposed to during a work shift, as established by OSHA.

Positive Pressure Respirator - A respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

Program Administrator - The individual at the Business Unit responsible for administering the Respiratory Protection Program.

Qualitative Fit Testing (QLFT) - A method of assessing the effectiveness of a particular size and brand of respirator based on an individual's subjective response to a test atmosphere. The most common test agents are isoamyl acetate (banana oil), irritant smoke, and sodium saccharin. Proper respirator fit is indicated by the individual reporting no indication of the test agent inside the facepiece during the performance of a full range of facial movements.

Quantitative Fit Testing (QNFT)- A method of assessing the effectiveness of a particular size and brand of respirator on an individual. The quantitative fit factor thus obtained is used to determine if a suitable fit has been obtained.

Service Life - The period of time that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

Appendix A – Glossary

(Page 4 of 4)

Supplied-Air (SAR) OR AIRLINE RESPIRATOR - An atmosphere -supplying respirator for which the source of breathing air is not designed to be carried by the user.

Threshold Limit Values (TLVs) - Refer to airborne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day, over a working lifetime, without adverse health effects. TLV's are established by the American Conference of Governmental Industrial Hygienists (ACGIH).

Threshold Limit Value - Time-Weighted Average (TLV-TWA) - The time-weighted average concentration for a conventional eight (8) hour workday and a forty (40) hour workweek, to which nearly all workers may be repeatedly exposed, day after day, over a working lifetime, without adverse effect. TLV - TWA's are established by the ACGIH.

Vapor - The gaseous phase of a substance which is a liquid at normal temperature and pressure.

Appendix B - Respirator Selection Guide

Respiratory Protection Selection Guide

Contaminate(s)	Respirator Required					
	Protection not Mandatory	Filtering Face Mask (N-95 or P-100)	Half Face AP Respirator [1]	Full Face AP Respirator [1]	PD SCBA/SAR w/ Escape Pack [2]	**No Entry Allowed** (IDLH) [3]
H_2S (Hydrogen Sulfide)	0 – 10 ppm		Escape Only [4] AG, MG or OV/AG	Escape Only [4] AG, MG or OV/AG	10 – 99 ppm	≥ 100 ppm
NH_3 (Ammonia)	0-25 ppm		[5]	25 – 299 ppm NG (200 ppm for 8 hrs) MG (200 ppm for 1.7 hr)		≥ 300 ppm
SO_2 (Sulfur Dioxide) [6]	0 – 2 ppm		2 – 19 ppm AG or MG	20 – 99 ppm AG or MG (5.8 hrs)		≥ 100 ppm
As (Arsenic) (Polk)	<10 µg/m³		10-100 µg/m³	>500 µg/m³		
CO (Carbon Monoxide)	<25 ppm [7]				50 – 1199 ppm	≥ 1200 ppm
O_2 (Oxygen)	19.5 – 23.5%				16.0 – 19.5%	< 16.0% or >23.5%
LEL (Flammable Gases)	≤ 10%					> 10%
H_2 (Hydrogen)	Refer to **LEL** and take O_2 readings to determine O_2 deficiency. Take appropriate steps.					
N_2 (Nitrogen)	Take O_2 readings to determine O_2 deficiency. Take appropriate steps.					
Syngas (Polk)	Refer to **CO**, **LEL** and **H_2S**. Take appropriate steps.					
Nuisance Dust (Total)	0-15 mg/m³	> 15 mg/m³				
Nuisance Dust (Respirable)	0-5 mg/m³	> 5 mg/m³				
Ozone	< 0.1 ppm				> 0.1 ppm or undetermined	
Welding Fumes	< PEL	Up to 5 x PEL	Up to 10 x PEL	Up to 50 x PEL		

NOTES:

1. Unless indicated otherwise, the filter cartridge service life is at least 12 hours. Cartridges are no longer usable after one shift (or indicated shorter time) and should be disposed of.
2. All SAR & SCBA compressed air cylinders shall provide Grade D Breathing Air.
3. Entry at or above IDLH should be for emergency rescue purposes **only** and performed by personnel trained in these duties. Non-emergency rescue entries **must** be reviewed with the Plant Safety Coordinator.
4. At concentrations > 100 ppm, H_2S odor can not be detected.
5. Half Face AP respirator for NH_3 is not appropriate. NH_3 is an eye irritant.
6. Concentrations > 20 ppm, appropriate PPE should be worn to protect skin from exposure and irritation.
7. CO is odorless and cartridges are not appropriate protection for CO.
   Entry w/out respirators is allowed as follows: 25 -50 ppm for < 4 hrs.
   50-200 ppm for < 15 mins.

KEY:

AP – Air purifying Respirator
FFM – Filtering Face Mask (N-95)
PD – Pressure Demand Respirator
PEL – Permissible Exposure Limit
PPE – Personal Protective Equipment
SCBA – Self Container Breathing Apparatus
SAR – Supplied-Air Respirator or Supplied-Airline Respirator
MG – Multi Gas cartridge:
The cartridges listed below are not TEC stock items, but can be ordered if service length dictates need.
AG – Acid Gas cartridge
NG – Ammonia Gas cartridge OV/AG – Organic Vapor / Acid Gas cartridge

Appendix C
Voluntary Respirator Use Form

TECO TAMPA ELECTRIC AN EMERA COMPANY

Tampa Electric Company
Voluntary Respirator Use Form

Appendix D to Sec. 1910.134 (Mandatory) Information for **Employees Using Respirators When Not Required Under the Standard**. Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. You need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirator's limitations.

2. Tampa Electric will provide respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you. Note. During the Covid-19 pandemic the Occupational Safety and Health Administration (OSHA) has permitted the use of non-NIOSH certified respirators provided they are certified following the standards of other countries. Tampa Electric is providing respirators under this exception, they are most labeled as KN95 dust masks.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

5. Only Filtering Facepiece Respirators (commonly referred to as Dust Masks) may be used on a voluntary basis. Supplied air respirators and other types of reusable respirators shall not be used on a voluntary basis.

I have read and understand the information provided in this document.

Employee Name (printed): _____

Employee Signature: _____

Date: _____