

# Connect+

## *Food Quality Reports User Guide*



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# 1. Food Quality Reports Overview

Connect+ Food Quality Reports (FQR) help to detect if the case temperature is too high or too low and facilitate the automatic reporting for the purpose of keeping the food safe.

With Connect+ Food Quality Reports, user would have capability to:

- Configure the case High/Low limit.
- Generate FQR report for the site.
- Email the report to the right person.

This document serves as a guide for on-boarding new customers to Connect+ Food Quality Reports (FQR). The screens presented in this guide will help you identify the necessary changes to make and where to configure in FQR. Note that due to user permission settings, some screens may be hidden. The Connect+ user configuring FQR must have administrator access to the system and must log in to view the appropriate properties. The Food Quality Reports license must also be enabled to set up any configuration related to FQR. The FQR is generated based on the circuits in a site, including both Standard, Case Control, and XM Circuits. Currently, FQR is supported in E2 and Site Supervisor controllers.

These are the supported peripheral equipment types for each type of supported case controller:

Case Controller Name	Case Temp Supported	2nd Case Temp Supported	Discharge Air Supported	Product Temp Supported	2nd Value Kit Supported
CC100-P (Liquid Pulse)	Yes	Yes	Yes	Yes	Yes - through Discharge Air Support
CC100-LS (Liquid Stepper)	Yes	Yes	Yes	Yes	No
CS 100	Yes	Yes	Yes	Yes	No
EC2-39X	Yes (called Air Temp on this controller type)	No	Yes (called Air In on this controller type)	No-Level 5 access required (not supported)	No
CCB Liquid Pulse	Yes	No	Yes	No	Yes
CCB Liquid Stepper	Yes	No	Yes	No	No
CCB Suction	Yes	No	Yes	No	No

## 2. Get Started with FQR

### 2.1 Feature Activation

Contact Copeland Administrator to first activate the Feature Licensing for FQR.

Click **Top Menu > Admin Tools > Feature Activation** to check the feature licensing is enabled.

Instructions		
<ol style="list-style-type: none"> <li>Contact Copeland at (770) 425-2724 to obtain feature licenses.</li> <li>Select the Add Feature button to add or update a feature license.</li> </ol>		
Feature Licenses	Status	Key
Maintenance Upgrades & Tech Support (Expires: 04-08-2022 CDT)	360 Day(s) Remain	CC78-0AE4-D0C2-0161
Connect+	Enabled	155A-C04C-76D0-3B89
Number of Sites (31889 of 32000 Sites Remain )	32000	0CC4-F0F1-6DB1-76FA
Graphical Status & Floorplan Creation Tool	Enabled	F8EE-4C65-6025-2784
Connect+ Advisory Receiver	Enabled	7A1A-5759-2FA5-35CD
Connect+ Data Acquisition	Enabled	DE01-6CF1-84A7-6A38
Number of Connections for TCP/IP	1000	50B3-2C0F-E05E-78CA
Number of Connections for ISDN	1000	9482-5E47-5B8D-25DA
Setpoint Broadcast	Enabled	Aefd-F737-2015-CE32
Demand Response	Enabled	369A-C37A-667A-9293
Refrigerant Tracking	Enabled	6554-9EFF-4D62-84C0
Number of Danfoss Control Systems	32000	C02B-5CC9-7675-0F3F
Reporting: Report Data Collection	2	8224-9ADD-F263-00F7
Food Quality Reports	Enabled	419E-02DC-8A3F-74F1
Number of TAC Xenta 401 Control Systems	32000	23AF-9647-0A21-C420
Scalability Test	Enabled	0BB9-8C39-B864-E857
CB Maintenance Test Utility	Enabled	9CE6-65FE-1CE7-D524
Energy	Enabled	BBC4-4A1A-9B2A-812A
Test Site Conditions	Enabled	F52F-5843-0C46-2998

#### Feature Licensing

### 2.2 Full List of FQR Properties

To enable FQR and configure certain functions, some properties must be set by the administrator in the Superuser property. Login with Superuser permissions, access the property page from **Top Menu > Super User > Properties Editor**.

Table 1: List of FQR Properties

Property Name	Default Value	Meaning
FQRSystemConfigs SendDetailsAsAttachment	false	If there is too much information in the Detail Exception Email or if it is too large, set this to "true" and the information on the FQR Detail Summary Email will be sent as a separate attachment.
FQRSystemConfigs displayFQRSiteAddress	false	Enable this property to show the site address in the FQR report.
FQRSystemConfigs label.summaryEmail.instanceName		Enter a unique name that describes which instance the email is from. It will show in the report name.
FQRSystemConfigs report.DisplayDefrostOnDischargeAir	false	Set to "true" if the customer wants to display defrost information on the report where the Discharge Air item is.
FQRSystemConfigs minimumDefrostMinutesAllowedInHour	10 (mins)	The minimum duration that defrost activities take. If it is less than the configuration, the report will not show defrost status.

**Table 1: List of FQR Properties**

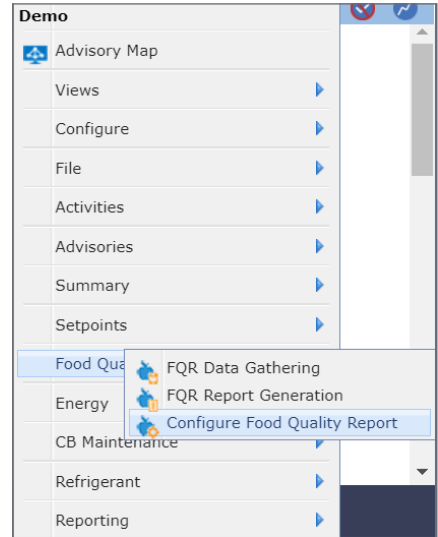
	Property Name	Default Value	Meaning
FQRSystemConfigs	report.defrost.log.image		Path to the image used on the report that will show for a logged defrost.
FQRSystemConfigs	report.defrost.value.image		Path to the image used on the report for a scheduled defrost.
*FQRSystemConfigs	report.email.attachments.limit.maxKB	3000	The maximum size (in KB) an attachment can be for reports. This is to conform to the email size restrictions that a server may have.
*FQRSystemConfigs	report.email.exceptionsReports.recipients		Detail Exception recipient email addresses, each separated by a comma.
*FQRSystemConfigs	report.email.exceptionsReportsSummary.recipients		Summary recipient email addresses, each separated by a comma.
*FQRSystemConfigs	report.email.from		The "From" email address for emails. Usually for Copeland hosted, this is set to: noreply@copeland.com
FQRSystemConfigs	report.email.fullReports.default.recipient.emails		Email address(es) that will be the default recipients of the full reports email on the configuration page.
FQRSystemConfigs	report.email.fullReports.default.recipient.userIDs		User ID of the user who will be the default recipient for full reports from the configuration page.
*FQRSystemConfigs	report.email.isEmailExceptionsReports	true	Set to "true" if the system should email the Detail Summary emails. If this is "false," no emails for Detail Summary will be sent.
*FQRSystemConfigs	report.email.isEmailExceptionsReportsSummary	true	Set to "true" if the system should email the Summary emails. If this is "false," no emails for Detail Summary will be sent.
*FQRSystemConfigs	report.email.minNeedBeZippedReportsCount	4	If the number of reports is equal or more than this number, all of the reports will be zipped and sent as an attachment to the email.
FQRSystemConfigs	report.row.label.prefix.caseTemp	case	Allows the label on the Food Quality Report itself to be changed for Case Temp. Note: The label will be reflected on the FQRs that are run after this change is made.
FQRSystemConfigs	report.row.label.prefix.dischargeAir	Disch Air	Allows the label on the Food Quality Report itself to be changed for Discharge Air. Note: The label will be reflected on the FQRs that are run after this change is made.
FQRSystemConfigs	report.row.label.prefix.productProbe	Product	Allows the label on the Food Quality Report itself to be changed for Product Probes. Note: The label will be reflected on the FQRs that are run after this change is made.

### 3. Configure Food Quality Report

There are defaults for all items in the FQR Configuration screen, but most likely, you will want to view and change some of the configurations.

To navigate to the Food Quality Report Configuration page, right-click on one tree node from the Directory to the Application Instance level, select **Food Quality > Configure Food Quality Report**.

**NOTE:** The configuration menu on Standard, Case Control, XM Circuits and supported peripheral equipment types are only visible.



Configure Food Quality Report

#### Food Quality Report Configuration

Activity **Food Quality Report Configuration**

Item **Demo**

---

Use default values below which are the global default values.

Included in Food Quality Report

Logo file: Default

High/Low Limit Rules List

-> If the setpoint is Less than or equal to -9.4 °F, then threshold is +/- 9 °F from the setpoint .

-> If the setpoint is Between (exclusive) -9.4 °F and -4 °F, then threshold is +/- 5.4 °F from the setpoint .

-> If the setpoint is Between (inclusive) -4 °F and 68 °F, then threshold is +/- 3.6 °F from the setpoint .

-> If the setpoint is Greater than 68 °F, then threshold is +/- 18 °F from the setpoint .

FQR reports currently being emailed to these users:

---

**OR**

Enter values specifically for this item:  
**Directory - Demo**

Exclude from the Report Generation for FQR

Exclude all Case Temperatures

Include Product Simulator Probes

Include all Discharge Air configured

Upload new logo file. If none is uploaded, the default will be used.

Logo file: Default

No file selected.

Delete logo file

Use rules below for calculating High and Low Limit Copy default rules now

Use Fixed Values For High and Low Limit

**Add**

If the setpoint is Less than or equal to -9.4 °F then boundary is +/- 9 °F

If the setpoint is Between (exclusive) -9.4 °F and -4 °F then boundary is +/- 5.4 °F

If the setpoint is Between (inclusive) -4 °F and 68 °F then boundary is +/- 3.6 °F

If the setpoint is Greater than 68 °F then boundary is +/- 18 °F

Email full report from the current level and below to these users

Food Quality Report Configuration Screen

The configured values will be stored on the tree level from where the page was accessed (as indicated in the **Item** field). The values will then be used for any report items at the indicated level and the below levels, unless a specific set of values is set for a below level.

The Food Quality Report Configuration page is divided into two sections. The top part of the page (above “OR”) shows the default settings. The bottom part (below “OR”) shows the customizable settings for the indicated level and below levels. Choose one of the two sections by enabling the appropriate radio button.

The options available for the bottom section of the Configuration Page are below:

- **Use rules below for calculating High and Low Limit** - Enable this checkbox to include the formula rules below for case temperatures and Discharge Air (user-defined configured) instead of the rules above.

Use rules below for calculating High and Low Limit

Formulas will allow the high and low boundaries on the Food Quality Report to “float” with the setpoint of the individual circuit.

**Add**

If the setpoint is   °F then boundary is +/-  °F

If the setpoint is   °F and  °F then boundary is +/-  °F

If the setpoint is   °F and  °F then boundary is +/-  °F

If the setpoint is   °F then boundary is +/-  °F

- **Copy Default Rules Now** - Click this button to use the default rules from the default setting.

**Copy default rules now**

- **Use Fixed Values For High and Low Limit (on case temperatures)** - When this checkbox is selected, the formulas will be changed to fixed values. The high and low boundaries on the Food Quality Report will be fixed for this circuit regardless of the setpoint value of the circuit.

Use Fixed Values For High and Low Limit

Low Limit  °F

High Limit  °F

- **Exclude from the Report Generation for FQR** - When selected, the current level (usually application instance) will be excluded from the FQR.
- **Exclude all Case Temperatures** - Enabling this option will exclude all Case temperatures for all circuits, both Case Control, Standard and XM, from the Food Quality Report.

- **Include Product Simulator Probes** - Enable this checkbox to include product simulator probes in the Food Quality Report. Allows configuration of the Product Temp Probes.

Use rules below for calculating High and Low Limit for Product Temp Probes Copy default rules now

Use Fixed Values For High and Low Limit

---

Add

- **Include all Discharge Air configured** - If this checkbox is enabled, the Discharge Air for Case Control devices will be included in the Food Quality Report.
- **Exclude Related Case Temperatures** - Enable this checkbox to exclude Case Temperatures in the Food Quality Report for which devices have Discharge Air. Note that Case Temperatures are included by default.
- **Logo file** - Logo file can be selected (optional).
- **Email full report from the current level and below to these users** - Allows the selected users of this list to receive the Food Quality Report each day by email from this current level and below. Usually, this is used when the Store Manager needs to get the reports each day.

Email full report from the current level and below to these users

**Users**

- administrator@copeland.com
- Advanced@copeland.com
- advdemo@copeland.com
- advdemo@copeland.com
- AHR@copeland.com
- nicholson@copeland.com
- nicholson@copeland.com
- API@copeland.com
- Sharma@copeland.com

**Additional Email Addresses (comma separated)**

Include users who currently have report emailing from above this level

- **Include users who currently have report emailing from above this level** - When this checkbox is enabled, all users listed at the top part of the page (above "OR") will also receive the report each day. When this checkbox is disabled, only the users who are selected in the "Users" list and those in the "Additional Email Addresses" list will receive an email of the report each day. This feature is beneficial, for example, when a Regional Manager wants to receive only some reports. This report will be added at a level above this one, but this check box should be enabled only to send this report to Store Managers.

After the configuration is done. Click the **Save** button.



## 4. FQR Data Gathering

Before the Food Quality report is generated, gather the data first. The activity can be scheduled set to execute on demand.

### 4.1 Schedule FQR Data Gathering

Go to **Top Menu > Activity > Schedule Manager**, choose Activity Type as **FQR Data Gathering**. Set the schedule detail of the activity (for example, when will the activity run for the first time, the starting and ending date and time of succeeding Smart Retries, and more). Choose the date range you want to gather, and click **Save** after the configuration is finished.

**Schedule Manager**  
All schedules are based on the server's time zone: (GMT -05:00) Eastern Standard Time - America/New\_York (EST) (DST)

Run Now  Run On Schedule

**Details**  
Enabled:   
Name:   
Type:

**Schedule**  
- (GMT -05:00) Eastern Standard Time - America/New\_York (EST) (DST)  
 Run Once  Interval Based  Calendar Based  
Start Date/Time:    
End Date/Time:    
 Every Day  Days of Week  Days of Month  
**Hours** 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23  
**Minutes** 0 5 10 15 20 25 30 35 40 45 50 55

**Notification**  
 On Success  On Unsuccessful

**Configuration**  
 Site Directories  
 Asia Demo  
 C  
 Dan  
 Demo  
 Generate Report  
 Create Report PDF Files  
 Date Range  Number of Days Back

**All** **Clear**  
**All** **Clear**

Schedule Manager Screen

If you need to generate the report right away once data gathering is completed, you can check **Create Report PDF Files**. An electronic copy of the report will be generated under the tomcat folder ...**webapps\copeland\vault\FQR-Reports** in the server.

If the activity is on-demand, it will automatically be downloaded as a compressed package or shown as PDF on a new tab for one day of a single site. (Verify your browser is set to allow pop-ups to open) once data gathering is completed.

### 4.2 Run FQR Data Gathering One Time

FQR Data Gathering can be run on demand. Right click on directory or site, select **Food Quality > FQR Data Gathering**.

# 5. FQR Report Generator

## 5.1 Report Generation Activity

Before report generation, verify the data have been retrieved in Connect+.

You can generate FQR report for a directory or a site by schedule or demand. Choose **FQR Report Generation** in Schedule Manager type, or right-click on directory or site level, and select **Food Quality > FQR Report Generation**.

**Schedule Manager**  
All schedules are based on the server's time zone: (GMT -05:00) Eastern Standard Time - America/New\_York (EST) (DST)

Run Now  Run On Schedule

**Details**  
Enabled:   
Name:   
Type: FQR Report Generation

**Schedule**  
- (GMT -05:00) Eastern Standard Time - America/New\_York (EST) (DST)  
 Run Once  Interval Based  Calendar Based  
Start Date/Time: 05/07/21 1:36 PM  
End Date/Time:    
 Every Day  Days of Week  Days of Month  
Hours: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23  
Minutes: 0 5 10 15 20 25 30 35 40 45 50 55

**Notification**  
 On Success  On Unsuccessful

**Configuration**  
**Site Directories**  
 Create Report PDF Files  
 Date Range  Number of Days Back  
Yesterday

**Buttons:** All, Clear

FQR Report Generation

Choose the date range or the number of days that you want the report to be generated.

Create Report PDF Files  
 Date Range  Number of Days Back  
Start Date: 05/06/2021  
End Date: 05/06/2021

PDF Report File Date

Create Report PDF Files  
 Date Range  Number of Days Back  
Yesterday  
Today  
Yesterday  
2 days  
3 days  
4 days  
5 days  
6 days  
7 days  
8 days  
9 days  
10 days  
11 days  
12 days  
13 days  
14 days

File Date

Once all configurations are done, click **Go** to start the report generation activity.

The report will be generated as a PDF after the activity has completed. It is generated based on one site per day, if the reports you generated are for multiple sites or several days, they will be presented in a compressed package.

When the user selects **Today** as the **Number of Days Back or Date Range**, which includes today's date, the FQR Data Gathering activity will be executed before the report is generated. This means that the report will not be generated as quickly.

## 5.2 Food Quality Report for Yesterday

If you want to quickly generate yesterday's FQR report for review, right-click on a Directory or Site, select **Food Quality > FOOD QUALITY REPORT for Yesterday**.



*Food Quality Report for Yesterday*

A system job will gather FQR data every day at 1:00 AM by default, but the schedule time is configurable.

**Schedule Manager**  
All schedules are based on the server's time zone: (GMT -05:00) Eastern Standard Time - America/New\_York (EST) (DST)

**Schedule Assistant**  Show System Schedules Show 25

Reset Scheduler Delete All Add New Reset Filters

Name	Type	User	Schedule	Next Run Time	Last Run Time	Last Status
fqr	All					All
FQRDataGatheringJob	system	system	Every Day At 1:00 AM	5/19/21 1:00 AM	5/18/21 1:00 AM	Partially Completed
FQR Demo	FQR Data Gathering	engadmin	Every Day At 2:20 AM	5/19/21 2:20 AM	5/18/21 2:20 AM	Partially Completed
FQRReportEmailJob	system	system	Every Day At 3:40 PM	5/19/21 3:40 PM	5/18/21 3:40 PM	Completed

*Schedule Assistant Screen*

### 5.3 Reading the FQR Report

The report will be generated for one site per day. By default, it is named as <SiteName>\_YYYYMMDD.pdf.

If multiple reports are generated, usually for a directory or multiple day, all the reports will be zipped up into one file.

Here is an example of the report:

Normal Too Cold Too Hot Defrost (log) ❄️ Defrost (schedule) ⌚ Data Gathering Issue --- Data Error - Local Issue ❌

#### Temperature Report for "154 Atlanta" . Thu, 6 May 2021 EDT

Item	SEPT	Low	High	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
LT1 GROC (case 1)	-12.5	-21.5	-3.5	❄️	6.9	-9.3	-9.3	-9.3	-9.3	❄️	7.4	-9.3	-9.3	-9.3	-9.3	-9.3	-8.0	-9.3	❄️	7.5	-9.3	-9.3	-9.3	-9.3	-9.3	-9.3	-9.3	
LT2 RI FROZ FD (Product 1)	1.5	-2.1	5.1	0.7	20.5	1.1	1.3	0.9	1.2	1.1	1.2	0.9	0.8	1.0	1.2	1.0	0.7	1.5	0.9	0.9	1.2	0.9	1.1	1.5	1.1	1.1	1.4	
LT3 RI FROZ FD (case 1)	0.5	-3.1	4.1	0.6	❄️	-0.2	0.5	0.0	-0.2	0.4	-0.5	0.3	0.6	0.0	0.3	0.1	0.1	1.6	0.5	0.0	-0.1	-0.1	0.2	-0.2	0.1	0.0	0.6	
LT7 RI FROZ FD (Disch Air 1: CCB_001)	0.0	-3.6	3.6	-0.6	0.1	0.1	⌚	-0.6	-0.4	-0.4	-0.5	-0.3	0.7	0.1	-0.8	-0.2	0.3	0.8	0.2	-0.2	0.0	-0.8	-0.3	-0.6	-0.5	-1.1	-0.6	
LT9 SEAFD FRZR (CCB 001)	0.0	-3.6	3.6	-7.5	-7.5	-7.5	-7.5	❄️	-2.0	-7.5	-7.5	-7.5	-7.5	❄️	-1.7	-7.5	-7.5	-6.4	-7.5	❄️	-1.7	-7.5	-7.5	-7.5	-7.5	❄️	-1.9	
MEAT PREP (Product: CC100L_1)	50.0	46.4	53.6	47.0	47.8	❄️	❄️	49.1	48.4	47.2	47.6	47.5	47.3	47.7	46.8	47.9	47.9	47.6	48.6	47.7	47.6	48.0	46.7	47.1	47.6	47.3	47.6	
TC27 RI ICREAM (case 2)	-10.0	-19.0	-1.0	❄️	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	❌	
TC28 RI FRZ FD (case 1)	-2.0	-5.6	1.6	-0.8	-0.8	-0.9	❄️	-0.6	-1.0	-0.6	-0.8	-0.6	-0.6	-0.5	-0.5	-1.0	-0.7	-0.7	❄️	-0.4	-1.0	-0.5	-0.8	-0.4	-0.6	-0.4	-0.6	
A15 MD MEAT (case 1)	28.0	24.4	31.6	29.9	29.9	29.9	29.9	❄️	29.9	29.9	29.9	29.9	29.9	❄️	30.0	29.9	29.9	29.9	29.9	❄️	29.9	29.9	29.9	29.9	29.9	❄️	29.9	
A16 MD DAIRY (case 1)	32.0	28.4	35.6	31.6	31.6	31.6	31.7	31.6	❄️	31.6	31.6	31.6	31.6	31.6	❄️	31.6	31.6	31.6	31.6	31.6	❄️	31.6	31.6	31.6	31.6	31.6	❄️	31.6
B19 MEAT HOLD (case 1)	32.0	28.4	35.6	32.5	32.2	❄️	34.1	32.3	32.2	32.5	32.7	❄️	33.6	32.0	32.5	32.5	32.4	❄️	34.2	32.4	32.2	32.3	32.0	❄️	34.1	32.0	32.4	
B20 SD DAIRY (case 1)	26.0	22.4	29.6	31.4	❄️	34.9	31.3	30.9	31.2	31.5	❄️	35.0	31.2	31.2	31.7	31.7	❄️	36.8	31.4	31.3	31.1	31.3	❄️	35.1	31.5	31.2	31.2	
B21A SVC PLTRY (case 1)	27.0	23.4	30.6	❄️	❄️	31.6	31.7	31.2	31.6	31.9	31.8	31.6	31.6	32.2	32.1	31.7	31.5	31.9	31.8	31.4	31.7	31.5	32.0	32.0	31.5	31.5		
B21B SRVC MEAT (case 1)	26.0	22.4	29.6	❄️	❄️	30.6	30.7	30.2	30.6	30.8	30.8	30.5	30.6	30.6	31.1	31.0	30.6	30.5	30.8	30.6	30.6	30.6	30.4	30.8	30.8	30.5	30.5	

Temperature Report for  
Conyers, GA. 30013

Sample Report

- Legend:** Each report will have a legend displayed at the top of the page. Symbols and colors used in the report denote the status of a food case or circuit for a given hour.

Normal Too Cold Too Hot Defrost (log) ❄️ Defrost (schedule) ⌚ Data Gathering Issue --- Data Error - Local Issue ❌

- A cell with a white background denotes that the hourly average temperature of a case is within the High and Low limit range; the case/circuit temperature for that hour is "Normal."
- A cell with a blue background denotes the hourly average temperature of a case falls below the Low limit indicating the case/circuit was "too cold" for that certain hour.
- A cell with a red background denotes that the hourly average temperature of a case exceeds the High limit indicating the case/circuit was "too hot."
- The defrost icon ❄️ denotes that defrost occurred during that hour.
- The scheduled defrost icon ⌚ denotes that a scheduled defrost occurred for more than 10 minutes.
- Dash lines (---) denote that no log data was retrieved for the corresponding hour, indicating that the data could be retrieved later.
- The symbol ❌ indicates that errors in data were identified for the corresponding hour, indicating that the data in the controller is either invalid or non-existent.

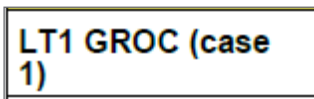
2. Report name:



3. Logo: you can change the logo from Food Quality Report Configuration (Refer to Section 3 - "Configure Food Quality Report" on page 4).

4. Item: The items on the left hand side are names of circuits in alphabetical order.

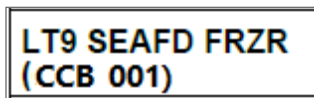
- The Standard Circuit/Case Circuit/XM Circuit with Case Temp: *Circuit name (case #)*



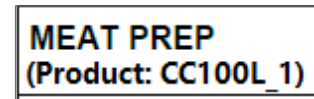
- Standard Circuit/Case Circuit/XM Circuit with Product Temp: *Circuit name (Product #)*



- If the Case Circuit associated with a device, the device with Case Temp will display the name as: *Circuit name (Device name #)*



- If the Case Circuit associated with a device, the device with Product Temp will display the name as: *Circuit name (Product: Device name)*



- If the Standard Case Circuit associated with a device, the device with Discharge Air will display the name as: *Circuit name (Discharge Air #: Device name)*



5. SEPT: It is the value of ACTIVE SETPT. If the ACTIVE SETPT configured with log, it will show the average data of the day, otherwise, it shows the real-time data of this point.

SEPT
-12.5
1.5

6. Low/High: The High and Low limit boundaries are calculated based on the Setpoint (ACTIVE SETPT) and what the user wants the range variance to be (configured in Food Quality Configuration page). These boundaries are used in the right-hand hourly columns of the report to show if the item was too hot (red background) or too cold (blue background).

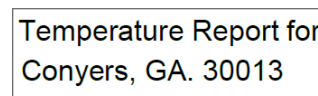
Low	High
-21.5	-3.5
-2.1	5.1

7. Hourly Value: There will be 1 column on the right for each hour of the day (0-23). The value in each column for a given row is the average for that hour from the log data. If the point is not configured with a log, it is the real time data. The points from which the data is retrieved will correspond to the name found in the left column.

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
❄️	6.9	-9.3	-9.3	-9.3	-9.3	❄️	7.4	-9.3	-9.3	-9.3	-9.3	-9.3	-8.0	-9.3	❄️	7.5	-9.3	-9.3	-9.3	-9.3	-9.3	-9.3	-9.3
0.7	20.6	1.1	1.3	0.9	1.2	1.1	1.2	0.9	0.8	1.0	1.2	1.0	0.7	1.5	0.9	0.9	1.2	0.9	1.1	1.5	1.1	1.1	1.4
0.6	❄️	-0.2	0.5	0.0	-0.2	0.4	-0.5	0.3	0.6	0.0	0.3	0.1	0.1	1.6	0.5	0.0	-0.1	-0.1	0.2	-0.2	0.1	0.0	0.6

The Defrost point log will be evaluated to determine if the defrost is present during hours of the day for the current day, and if the Defrost is present for a given hour, the Defrost icon ❄️ will show on the report. If the Defrost is configured as schedule, it will show a scheduled defrost icon ⌚.

8. Address: To show your site address at the bottom of the report, enable the FQRSystemConfigs.displayFQRSiteAddress with administrator privileges. The address will be read from Site Configuration page. For example:



## 6. FQR Report Emailing

There are three types of FQR emails. Users can be configured to receive any of these emails depending on their roles and needs:

- FQR Full Report Email** - Sends an email with the corresponding FQRs for the site to which the user has been assigned. The FQRs are sent in PDF format as a separate files or a ZIP file (more than 3 files will combine with a ZIP file) attachment and is recommended for end-users without administrator responsibilities.
- FQR Summary Email** - Includes a table showing a summary of the reports that were run for the last seven (7) days and how many were completed successfully, as well as a table listing the sites that had exceptions for the last seven days. The information is in the body of the email without attachments and is recommended for system administrators who do not want to view entire reports and want to keep their Inbox to a minimum size.
- FQR Exception Details Email** - The same as FQR Summary email but with additional details about the type of errors for each site that had exceptions. It will also have the corresponding site reports with exceptions attached in PDF format as a ZIP file and is recommended for system administrators who want to review reports and detailed failures for each site.

The configuration procedures for these three types are described in the following sections:

### 6.1 FQR Full Report Email

The Full Report email will include all the reports that the user is allowed access to, attached as a PDF file or within a ZIP file.

Please note that the attachment report ZIP is limited to the size property **FQRSystemConfigs > report.email.attachments.limit.maxKB** that is configured by the administrator. It can be changed to any value for that installation that the system or email server can handle.

Before emailing, verify the below properties are configured by the administrator:

**Table 2: Property Settings**

Property Name	Set Property Value To
Mail.smtp.host	<the server name that could send, receive the mail >
report.email.fullReports.default.recipient.e mails	<the email of the person who will receive all reports>
report.email.from	<the from address as shown in the email for all FQR emails>

The **report.email.fullReports.default.recipient.emails** is configured for global, after it has been configured, it will display in the default section above "OR" in blue text in the FQR Configuration page, and will be inherit at directory level.

Use default values below which are the global default values.

<p>Included in Food Quality Report</p> <p>Logo file: Default</p>	<p>High/Low Limit Rules List</p> <p>-&gt; If the setpoint is Less than or equal to -9.4 °F , then threshold is +/- 9 °F from the setpoint .</p> <p>-&gt; If the setpoint is Between (exclusive) -9.4 °F and -4 °F , then threshold is +/- 5.4 °F from the setpoint .</p> <p>-&gt; If the setpoint is Between (inclusive) -4 °F and 68 °F , then threshold is +/- 3.6 °F from the setpoint .</p> <p>-&gt; If the setpoint is Greater than 68 °F , then threshold is +/- 18 °F from the setpoint .</p> <p>FQR reports currently being emailed to these users:</p> <div style="border: 1px solid red; padding: 2px; display: inline-block; margin-top: 5px;">username@copeland.com</div>
--	---

FQR Configuration Screen

If report emailing has already been configured for a directory, the names and email addresses of the users configured for report emailing will display in the default section above "OR" in blue text for the site. If configuring report emailing for the first time, this area will be blank. To configure this functionality, follow the steps below:

1. Enable the Enter values specifically for this item radio button (under the "OR" section) to configure report emailing for the navigation tree level you are on.
2. Enable the Email full report from the current level and below to these users by configuring the radio button to configure an email list. When the checkbox is selected, a Users box will display the names and email addresses of users configured in Connect+, and the Additional Email Addresses box will appear.
3. Configure an email list for the current level.
  - Under **Users**, enable the checkbox next to the username that you wish to add in the email list. Users will get reports only for sites that they are given permission to access. If a user is selected from the list but does not have access to a given site, the user will not receive FQR emails for that site.
  - Additional email addresses may be entered into the Additional Email Addresses box. One or more email addresses can be entered. Use a comma (,) between email addresses to separate them.
4. (Optional) If accessing the page from a Site level and the Directory's email list needs to be added to the current Site's email list, enable the Include users who currently have report emailing from above this level checkbox. Enable this checkbox if the email address(es) above the current level should receive the report in addition to the users selected in the **User** box and the Additional Email Addresses box; otherwise, disable the checkbox to send the report only to the email addresses selected in the **User** and Additional Email Addresses boxes.
5. Click **Save** at the top of the page.

When FQR is run from this level and the report is generated, the reports will be sent out by email after a system job **FQRReportEmailJob** is executed.

**Schedule Manager**  
All schedules are based on the server's time zone: (GMT -05:00) Eastern Standard Time - America/New\_York (EST) (DST)

**Schedule Assistant**  Show System Schedules Show 25

Reset Scheduler
Delete All
Add New
Reset Filters

Name	Type	User	Schedule	Next Run Time	Last Run Time	Last Status
fqr	All					All
FQRDataGatheringJob	system	system	Every Day At 1:00 AM	5/19/21 1:00 AM	5/18/21 1:00 AM	Partially Completed
FQR Demo	FQR Data Gathering	engadmin	Every Day At 2:20 AM	5/19/21 2:20 AM	5/18/21 2:20 AM	Partially Completed
FQRReportEmailJob	system	system	Every Day At 3:40 PM	5/19/21 3:40 PM	5/18/21 3:40 PM	Completed

*FQRReportEmailJob Sample*

The email recipients list will receive an email with the report attachment. If three or less reports were generated, individual reports (PDF) will be attached to the email. If more than three reports were generated, the reports will be attached to the email as a zipped file (ZIP).

The **report.email.from** property must have a valid email-formatted address for emailing to be set up properly.

## 6.2 FQR Summary Email

The FQR Summary Email will include a table showing a summary of the reports that were run for the last seven (7) days and how many were completed successfully as well as a table listing the sites that had exceptions for the last seven days.

**FQR Report Summary on RD-internal(RsSwdev09)**

**Complete & Incomplete Report Counts (A complete report means all values are filled in)**

FQR Summary	Dec 05	Dec 06	Dec 07	Dec 08	Dec 09	Dec 10	Dec 11
Completed Reports	29	29	30	30	30	30	30
Incomplete Reports	3	3	2	2	2	2	2
Percent Complete	91%	91%	94%	94%	94%	94%	94%

**Note: The following tables contain potential issues and may include sites that are considered complete.**

**Report Exception Counts**

Items highlighted with a yellow background are incomplete reports for that day.

Site Name	Exceptions on Dec 05	Exceptions on Dec 06	Exceptions on Dec 07	Exceptions on Dec 08	Exceptions on Dec 09	Exceptions on Dec 10	Exceptions on Dec 11
506	2	1	0	0	0	0	0
530	1	1	1	1	1	1	1
538	1	1	1	0	1	1	2
539	1	1	1	1	1	1	1
545	1	0	1	0	0	0	0
556	1	1	1	1	1	1	1
562	2	3	2	3	2	2	2
575	2	2	2	2	2	2	2

*FQR Report Summary*

For the **Complete & Incomplete Report Counts** table, each of the last seven days shows a column with the most current day appearing on the far right.

**Complete & Incomplete Report Counts (A complete report means all values are filled in)**

FQR Summary	Dec 05	Dec 06	Dec 07	Dec 08	Dec 09	Dec 10	Dec 11
Completed Reports	29	29	30	30	30	30	30
Incomplete Reports	3	3	2	2	2	2	2
Percent Complete	91%	91%	94%	94%	94%	94%	94%

*FQR Complete and Incomplete Report Counts*

- The row for **Completed Reports** shows how many FQRs were completed without data gaps.
- The row for **Incomplete Reports** shows how many FQRs had data gaps present.
- The row for **Percent Complete** shows how complete the total was for that day.



For the **Report Exception Counts** table:

<b>Report Exception Counts</b>							
Items highlighted with a yellow background are incomplete reports for that day.							
Site Name	Exceptions on Dec 05	Exceptions on Dec 06	Exceptions on Dec 07	Exceptions on Dec 08	Exceptions on Dec 09	Exceptions on Dec 10	Exceptions on Dec 11
506	2	1	0	0	0	0	0
530	1	1	1	1	1	1	1
538	1	1	1	0	1	1	2
539	1	1	1	1	1	1	1
545	1	0	1	0	0	0	0
556	1	1	1	1	1	1	1
562	2	3	2	3	2	2	2
575	2	2	2	2	2	2	2

*Report Exception Counts*

- Yellow background = data gap for that day.
- White background and a number greater than 0 = a minor exception for that day.
- White background with a 0 = report was complete for that day.

One example is a defrost schedule or log was missing for that day. For the Error Message Definitions below, note that the numbers in each column represent the summation of error types, and also note that detailed error messages are only reflected in the FQR Exceptions Email:

**Table 3: Error Message Definitions**

Errors Related to Defrost		Error Message As It Appears On FQR Exceptions Emailed Report
Defrost Log	Defrost Schedule	
Yes but less than 10 minutes	No	Defrost Log Data Not Found
Yes but less than 10 minutes	Yes	Defrost Log Data Not Found
No	No	Neither Defrost Log Nor Defrost Schedule Is Found
Causes For Other Errors		Error Message As It Appears On FQR Exceptions Email
Data gathering error - this may occur due to network connection or transmission error.		Temperature Log Not Found
Data Error - the data is not valid .This occurs when a value other than OK is reflected in the retrieved log data. Types of possible errors detected are: <ul style="list-style-type: none"> <li>• No Data</li> <li>• Failure on Point</li> <li>• Point is Inactive</li> <li>• Data is Missing</li> <li>• Not Applicable</li> <li>• Not Active</li> <li>• No Value</li> </ul>		Invalid Temperature Log Data

Before sending the summary report, verify the below properties have been configured by the administrator.

Table 4: Property Settings

Property Name	Set Property Value To
report.email.isEmailExceptionReportsSummary	true
report.email.exceptionsReportsSummary.recipients	<the email addresses that will receive the report> (Note that these email addresses do not currently have to be users in the Connect+ system.)

### 6.3 FQR Exception Email

The FQR Exception Details Email will include the same two tables as the FQR Summary Email with the additional detail of each site that had exceptions, as well as the type of exceptions. It will also have the corresponding site reports with exceptions attached in PDF format.

**Complete & Incomplete Report Counts (A complete report means all values are filled in)**

FQR Summary	Jun 12	Jun 13	Jun 14	Jun 15	Jun 16	Jun 17	Jun 18
Completed Reports	0	0	0	0	0	0	0
Incomplete Reports	0	0	0	0	0	0	1
Percent Complete	--	--	--	--	--	--	0%

**Note:** The following tables contain potential issues and may include sites that are considered complete.

**Report Exception Counts**

Items highlighted with a yellow background represent incomplete reports for that day.

Site Name	Exceptions on Jun 12	Exceptions on Jun 13	Exceptions on Jun 14	Exceptions on Jun 15	Exceptions on Jun 16	Exceptions on Jun 17	Exceptions on Jun 18
252-1	no report	no report	no report	no report	no report	no report	141

**Report Exceptions for 252-1 on Jun 18, 2020.**

Items	Missing Data	Description	Additional Info
A01 MEAT FZR (case 1)	Temperature	Temperature log not found	02 - 23
A01 MEAT FZR (case 3)	Temperature	Temperature log not found	03 - 23
A01 MEAT FZR (case 5)	Temperature	Temperature log not found	03 - 23
A02 BAKERY FZR (case 1)	Defrost	Neither defrost log nor defrost schedule is found	
A02 BAKERY FZR (case 1)	Setpoint	Neither setpoint log nor setpoint value is found	
A02 BAKERY FZR (case 1)	Temperature	Temperature log not found	00 - 23
A03 PF FZR (case 1)	Defrost	Neither defrost log nor defrost schedule is found	
A03 PF FZR (case 1)	Setpoint	Neither setpoint log nor setpoint value is found	
A03 PF FZR (case 1)	Temperature	Temperature log not found	00 - 23
A04A STOCK FZR (case 1)	Defrost	Neither defrost log nor defrost schedule is found	
A04A STOCK FZR (case 1)	Setpoint	Neither setpoint log nor setpoint value is found	
A04A STOCK FZR (case 1)	Temperature	Temperature log not found	00 - 23

[FQR Summary](#)

## 7. Auto-Fix Previous Reports

When the FQR Generation job runs, it will automatically attempt to auto-repair any pending errors in reports generated on previous days. This is a default feature of the system and does not need to be enabled.

If there are pending errors/exceptions:

- The system will attempt to regenerate and auto-repair any reports with pending exceptions if missing data is found in the most recent data logs retrieved. (The table will show a maximum of 7 days, but the system will continue to search back if there are pending errors farther back than 7 days).
- Note that the system's ability to auto-repair any exceptions is limited by the controller's log memory setting. For example, if there is an error 21 days ago, but the controller is set to maintain only 2 weeks (14 days) of log data, the error cannot be auto-repaired past day 14, even if the condition causing the error (for example, a network communication problem) has been cleared.

FQR Summary	Sep 24	Sep 25	Sep 26	Sep 27	Sep 28	Sep 29	Sep 30
Completed Reports	32	31	32	32	32	32	32
Incomplete Reports	1	2	1	1	1	1	1
Percent Complete	97%	94%	97%	97%	97%	97%	97%

*FQR Summary*

Visit our website at [copeland.com/en-us/products/controls-monitoring-systems](https://copeland.com/en-us/products/controls-monitoring-systems) for the latest technical documentation and updates.  
For Technical Support call 833-409-7505 or email [ColdChain.TechnicalServices@Copeland.com](mailto:ColdChain.TechnicalServices@Copeland.com)

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