



CASE STUDY: Automated Data Logging Efficiency Saves Money and Helps Meet Customer and Regulatory Needs

Sonitrol Security of Delaware Valley delivers innovative solution

Larry Moon of Safeway Freezer Storage Company looks back in wonder at the valuable employee time spent walking their nearly 1 million cubic feet of refrigerated storage space manually recording cooler temperatures on a clipboard. “It’s a little painful to think of the time and money we spent recording temperatures. The EA800 makes it so easy.” Moon and his team in Vineland, NJ, looked to Sonitrol Security of Delaware Valley in Wilmington, DE, for a quick, effective way to monitor the temperatures throughout their facilities. The EnviroAlert EA800 not only monitors but also alarms to notify personnel of improper conditions. The sensor data is automatically logged producing an audit trail to satisfy clients and exceed government requirements.

Safeway Freezer has been in operation since 1961. Under new ownership since 2009, current president Frank Tedesco has been modernizing operations. The state of the art facility offers 6 million cubic feet of multi-temperature freezer space and nearly 1 million cubic feet of cooler space to over 80 customers. Storage includes everything from beets to seafood and fruit. Goods are delivered via the Safeway Freezer logistics and trucking fleet to grocers, convenience stores and institutions throughout North America.

“We have worked with Safeway Freezer and its predecessor for years providing video, fire, burglar and access security,” said Stephen Fox of Sonitrol Security. “Larry and I collaborated on the cooler monitoring solution. The EnviroAlert EA800 simultaneously monitors multiple probes with different temperature ranges while providing data logging. Additionally, the consoles connected seamlessly with the existing security system and the eight zone capacity allows room for future growth.”

The EnviroAlert EA800 is a wireless environmental monitoring solution designed to monitor up to 4 hard wired and up to 4 wireless sensors for critical conditions including temperature, humidity, water presence, and dry contact devices (NO and NC). Extending the probes up to 1,000’ from the consoles in the Quality Control Managers office provided wide area coverage for the Safeway Freezer complex. Each zone has individual high and low temperature set points allowing different coolers to be monitored on a single console. The data collection feature automatically logs sensor data as well as event and alarm history as frequently as once every 30 seconds or up to once every 120 minutes. This allows employee-free monitoring while meeting regulatory Hazard Analysis and Critical Control Point (HACCP) requirements. Each console is password protected to prevent tampering.

In alarm state, the on-board buzzer sounds and the LCD screen flashes for local audible and visual



The EA800 output relays connect to the Sonitrol eAccess system.

notification. For this installation, the standard dry contact output relays were connected to the Sonitrol eAccess system to provide text and email notification

CASE STUDY continued:

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as well. “Shortly after the installation was completed, we had a unit shut down,” Moon reported. “Sonitrol’s ability to immediately email our maintenance manager allowed us to avert a serious and expensive situation.”

“Food storage is a very competitive business,” Moon commented. “Our customers have responded positively to our emailed data logs. They are clear and clean showing hourly temperatures for the coolers where their goods are stored.” This added advantage has helped business grow. Safeway Freezer is planning to add another building where the EnviroAlert EA800 will be deployed as well.

“We’ve worked with many Winland products using everything from the WaterBug to the TempAlert. The EnviroAlert line with multiple zone monitoring allowed us to help customers in a far greater capacity,” Joe Allen, owner of Sonitrol Security of Delaware Valley commented. “Theft and fire are the usual focus for traditional security. However, critical condition environments can quickly loose expensive goods and equipment with no ‘bad guy’ to be found. The data collection feature is most often a deciding factor. The continuous monitoring helps customers meet their regulations and generates additional RMR. We

are currently presenting the EA800 to all customers storing food, drugs, and blood.”

Keith Ebert, Winland Eastern Sales Manager said, “It’s been really exciting to see more security companies as well as business facility and operations managers realize the value of monitoring critical conditions in a complete security solution. Smart business people like Joe and Larry understand critical conditions such as temperature, humidity and water presence can “steal” just as much if not more than the guy in the ski mask.”

ENVIROALERT EA800									
Import Alarm Data									
Alarms									
Date and Time of reading	Sensor #	Sensor Name	Sensor Reading	Low Limit Value	High Limit Value	Unit of Measure	Sensor Connection	Sensor Type	Alarm Description
3/18/2008 3:43	7	COMPUTER ROOM	0	-40	257 F	RF Temperature	RF Temp	HA-III+	Wireless Sensor Communication Failure
3/18/2008 3:43	8	HUMIDOR	0	1	99 %RH	RF Humidity	RF Temp	HA-III+	Wireless Sensor Communication Failure
3/18/2008 3:45	7	COMPUTER ROOM	76	-40	257 F	RF Temperature	RF Temp	HA-III+	No-Alarm or Alarm Cleared
3/18/2008 3:47	8	HUMIDOR	24	1	99 %RH	RF Humidity	RF Temp	HA-III+	No-Alarm or Alarm Cleared
3/24/2008 2:02	8	HUMIDOR	95	1	39 %RH	RF Humidity	RF Temp	HA-III+	High-Limit Exceeded
3/24/2008 2:03	8	HUMIDOR	94	1	99 %RH	RF Humidity	RF Temp	HA-III+	No-Alarm or Alarm Cleared
3/28/2008 9:51	9		0	0	0	None	White		
3/28/2008 9:51	5	COOLER #1	0	-58	158 F	RF Contact	Blue		No-Alarm or Alarm Cleared
3/28/2008 9:51	6	STORAGE ROOM	0	32	302 F	RF Contact	Red		No-Alarm or Alarm Cleared
3/28/2008 9:51	7	COMPUTER ROOM	0	-40	257 F	RF Temperature	RF Temp		No-Alarm or Alarm Cleared
3/28/2008 9:51	5	COOLER #1	0	-58	158 F	RF Contact	Blue		No-Alarm or Alarm Cleared
3/28/2008 9:51	5	COOLER #1	0	-58	158 F	RF Contact	Blue		No-Alarm or Alarm Cleared
3/28/2008 9:51	5	COOLER #1	0	-58	158 F	RF Contact	Blue		No-Alarm or Alarm Cleared
3/28/2008 9:51	5	COOLER #1	0	-58	158 F	RF Contact	Blue		No-Alarm or Alarm Cleared
3/28/2008 9:51	5	COOLER #1	0	-58	158 F	RF Contact	Blue		No-Alarm or Alarm Cleared
3/28/2008 9:51	5	COOLER #1	0	-58	158 F	RF Contact	Blue		No-Alarm or Alarm Cleared
3/28/2008 9:51	5	COOLER #1	0	-58	158 F	RF Contact	Blue		No-Alarm or Alarm Cleared
3/28/2008 9:51	5	COOLER #1	0	-58	158 F	RF Contact	Blue		No-Alarm or Alarm Cleared
3/28/2008 11:05	5	SUMP PUMP	Wet	Dry	Dry	RF Contact	WaterBug		Low-Limit Exceeded
3/28/2008 11:05	5	SUMP PUMP	Dry	Dry	Dry	RF Contact	WaterBug		No-Alarm or Alarm Cleared
3/28/2008 11:05	5	SUMP PUMP	Wet	Dry	Dry	RF Contact	WaterBug		Low-Limit Exceeded
3/28/2008 11:05	5	SUMP PUMP	Dry	Dry	Dry	RF Contact	WaterBug		No-Alarm or Alarm Cleared
3/28/2008 11:05	5	SUMP PUMP	Wet	Dry	Dry	RF Contact	WaterBug		Low-Limit Exceeded
3/28/2008 11:05	5	SUMP PUMP	Dry	Dry	Dry	RF Contact	WaterBug		No-Alarm or Alarm Cleared
3/28/2008 11:05	5	SUMP PUMP	Wet	Dry	Dry	RF Contact	WaterBug		Low-Limit Exceeded
3/28/2008 11:05	5	SUMP PUMP	Dry	Dry	Dry	RF Contact	WaterBug		No-Alarm or Alarm Cleared
3/28/2008 11:06	5	SUMP PUMP	Cut	Dry	Dry	RF Contact	WaterBug		Low-Limit Exceeded
3/28/2008 11:06	5	SUMP PUMP	Dry	Dry	Dry	RF Contact	WaterBug		No-Alarm or Alarm Cleared
3/28/2008 11:06	5	SUMP PUMP	Cut	Dry	Dry	RF Contact	WaterBug		Low-Limit Exceeded
3/28/2008 11:06	5	SUMP PUMP	Dry	Dry	Dry	RF Contact	WaterBug		No-Alarm or Alarm Cleared
3/28/2008 11:06	5	SUMP PUMP	Wet	Dry	Dry	RF Contact	WaterBug		Low-Limit Exceeded

Alarm data log

10,000 data point collection:

Event Data

- Power on / off - system updates
- Sensor and log modifications

Alarm Data

- Sensor number / custom name
- Alarm reading and description
- Alarm limit settings with unit of measure
- Sensor connection and type

Sensor Data

- once every 30 seconds to once every 120 minutes
 - Every minute = 1 week of data
 - Every 30 minutes = 6 months of data
 - Every 60 minutes = 1 year of data
- Sensor reading with unit of measure
- Wireless performance if applicable
- Alarm information if applicable

Date and Time of reading	Sensor 1		FREEZER #1								
	Reading	Unit of Measure	Wireless Performance (No. of Bars)	Pause	Pending Alarms	Low	High	Comm	Fail	No Data	Low Battery
04/03/2008 03:17:00 PM	73	F		0	0	0	0	0	0	0	0
04/03/2008 03:17:31 PM	73	F		0	0	0	0	0	0	0	0
04/03/2008 03:18:00 PM	73	F		0	0	0	0	0	0	0	0
04/03/2008 03:18:30 PM	73	F		0	0	0	0	0	0	0	0
04/03/2008 03:19:00 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:19:31 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:20:00 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:20:30 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:21:00 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:21:30 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:22:01 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:22:30 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:23:01 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:23:30 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:24:00 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:24:31 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:25:00 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:25:31 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:26:00 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:26:30 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:27:01 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:27:30 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:28:01 PM	72	F		0	0	0	0	0	0	0	0
04/03/2008 03:28:30 PM	72	F		0	0	0	0	0	0	0	0

Sensor data log

Event data log

Events		
Date and time of event	Event Description	Sensor #
3/17/2008 17:14	System power on	
3/18/2008 8:15	Alarm log file cleared	
3/18/2008 10:43	RF Sensor Reset	
3/18/2008 10:43	RF Sensor Reset	
3/18/2008 10:43	RF Sensor Reset	
3/18/2008 10:44	RF Sensor Reset	
3/18/2008 11:05	System power on	
3/18/2008 11:07	WRM Reset	
3/18/2008 11:24	System power on	
3/18/2008 11:24	Update Loaded	
3/18/2008 13:41	System power on	
3/18/2008 13:44	System power on	
3/18/2008 15:23	System power on	
3/18/2008 15:51	System power on	
3/18/2008 0:55	System power on	
3/18/2008 0:55	System power on	
3/18/2008 0:57	System power on	
3/18/2008 0:57	System power on	
3/18/2008 16:36	System power on	
3/18/2008 16:36	Update Loaded	
3/20/2008 13:11	Sensor Delay chg	1
3/20/2008 13:11	Sensor Delay chg	1
3/20/2008 13:21	System power on	
3/20/2008 13:22	Sensor Delay chg	1
3/20/2008 13:22	Sensor Delay chg	1