RESOLUTION AWARDING BID FOR THE 911 CENTER FM-200 SYSTEM PROJECT (CLEAN AGENT FIRE EXTINGUISHING SYSTEMS) FOR THE FACILITIES MANAGEMENT DEPARTMENT

WHEREAS, pursuant to Neb. Rev. Stat. §23-104(6), the County has the power to do all acts in relation to the concerns of the County necessary to the exercise of its corporate powers; and,

WHEREAS, pursuant to Neb. Rev. Stat. §23-103, the powers of the County as a body are exercised by the County Board; and,

WHEREAS, bids for the 911 Center FM-200 System have been solicited, made, opened and reviewed pursuant to applicable Nebraska State Statutes; and,

WHEREAS, based on those proceedings, this Board has duly deliberated and considered the bids received; and,

WHEREAS, this Board desires to proceed forthwith in order to expedite and facilitate service to the citizens of Sarpy County.

NOW, THEREFORE, BE IT RESOLVED BY THIS BOARD OF COUNTY COMMISSIONERS THAT:

1. Based upon the recommendation of the Purchasing Department, and upon a comparison of the bids to the bid specifications, the bid is hereby awarded to the low bidder Associated Fire Protection for 911 Center FM-200 System in the amounts of Eighty Nine Thousand Four Hundred Sixty Five Dollars and No Cents ($89,465.00) is accepted, ratified, and confirmed.

2. This Board’s Chairman, Clerk, and Attorney are hereby authorized and directed to execute such ancillary documents as may be required to evidence the contract and take any and all steps necessary or required in order to carry out the terms of such contract after said documents have been reviewed by the Attorney, Fiscal Administrator, and County Administrator.

The above resolution was approved by a vote of the Sarpy County Board of Commissioners at a public meeting duly held in accordance with applicable law on the 28th day of August, 2018.

ATTEST:

Sarpy County Board Chairman

Sarpy County Clerk
MEMO

To: Sarpy County Board of Commissioners

From: Beth Garber

Re: 911 Center FM-200 System Bid Award

On August 10, 2018, two (2) bids were opened for the 911 Center FM-200 System Project (clean agent fire extinguishing system) for the Facilities Management Department. After review and clarification, it is recommended the bid be awarded to the low bidder, Associated Fire Protection, for $89,465. The estimated start date is September 2, 2018 with a project completion date of September 21, 2018 with coordination from Sarpy County Facilities Management and Emergency Communications.

Please contact me with any questions at bgarber@sarpy.com.

August 22, 2018

Beth Garber

cc: Dan Hoins
Scott Bovick
Brian Hanson
Deb Houghtaling
Brian McCoy
Ross Richards
Bill Muldoon
Stu DeLaCastro
Event Number | 2018-135 Addendum 2  
Event Title | 911 Center FM-200 System Project (Clean A Workgroup Purchasing)  
Event Description |  
Event Type | RFP Public  
Issue Date | 7/9/2018 10:00:00 AM (CT)  
Close Date | 8/10/2018 09:30:00 AM (CT)  
Organization | Sarpy County Purchasing  
Workgroup | Beth Garber  
Event Owner | bgarber@sarpy.com  
Email | (402) 593-4476 x  
Phone |  
Fax |  
Responding Supplier | City | State | Response Submitted | Lines Responded | Response Total |
--- | --- | --- | --- | --- | ---|
Associated Fire Protection (A.F.P) Omaha | Omaha | NE | 8/9/2018 03:54:51 PM (CT) | 1 | $89,465.00 |
FireGuard Inc. Omaha | Omaha | NE | 8/9/2018 12:32:43 PM (CT) | 1 | $142,657.00 |

Please note: Lines Responded and Response Total only includes responses to specification. No alternate response data is included.
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<td><a href="mailto:kmcgregor@nctc.co">kmcgregor@nctc.co</a></td>
<td>richard.colegrove@</td>
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<td>Associated Fire Protection (A.F.)</td>
<td>Randy Roger Sherry</td>
<td><a href="mailto:rsherry@associatedfire.net">rsherry@associatedfire.net</a></td>
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<td>Travis De Goei</td>
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AGREEMENT

This Agreement is entered into by and between the County of Sarpy, in the State of Nebraska, a body politic and corporate, and hereinafter “County”, and Associated Fire Protection hereinafter “Vendor”.

WHEREAS, County is desirous of contracting for 911 Center FM-200 System Project for the Facilities Management Department; and,

WHEREAS, the Vendor has been awarded this Agreement as a result of the bid made by Vendor in response to the Specifications and Request for Proposals prepared by County;

NOW, THEREFORE, for and in consideration of the declarations and mutual promises and covenants contained herein, the County and Vendor agree as follows:

I. DUTIES OF VENDOR

A. Services to be rendered by Vendor under this Agreement shall be all those services necessary and proper for the installation and materials for 911 Center FM-200 System Project in conformity with each and every term, condition, specification, and requirements of the Bid Specifications and the Bid submitted by the Vendor.

B. All provisions of each document and item referred to in Paragraph A above shall be strictly complied with the same as if rewritten herein, and in the event of conflict among the provisions of said documents, the provisions most favorable to the County shall govern.

C. Prior to the commencement of any work, Vendor will place on file with the Sarpy County Clerk, the required certificates of insurance, if applicable.

D. The Vendor agrees to comply with the residency verification requirements of Neb. Rev. Stat. §4-108 through §4-114. The Vendor is required and hereby agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If the Vendor is an individual or sole proprietorship, the following applies:

1. The Vendor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at www.das.state.ne.us.

2. If the Vendor indicates on such attestation form that he or she is a qualified alien, the Vendor agrees to provide the U.S. Citizenship and Immigration Services
documentation required to verify the Vendor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

3. The Vendor understands and agrees that lawful presence in the United States is required and the Vendor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. Sect. 4-108.

E. Vendor will submit an invoice to County for work completed based on the amounts specified in Vendor's bid. Such invoices shall be submitted to:

Facilities Management Department  
Sarpy County Courthouse  
1210 Golden Gate Drive  
Papillion, NE 68046

F. The County and Vendor hereto specifically acknowledge, stipulate and agree that each and every term of the Bid Specifications and the Vendor's bid constitutes an essential term of this Agreement, and that, therefore, any violation of any term, condition, provision, or requirement constitutes a material breach hereunder, for which County shall have every right under the law to terminate this Agreement, and obtain any and all relief necessary.

II. DUTIES OF COUNTY

In return for full, faithful and diligent rendering of services set forth above, County agrees to pay to Vendor the amount specified in Vendor's bid upon submission of the required invoice and satisfactory completion of all required work.

III. BREACH

Should Vendor breach, violate, or abrogate any term, condition, clause or provision of this agreement, the County shall notify Vendor in writing that such an action has occurred. If satisfactory provision does not occur within ten (10) days from such written notice, the County may, at its option, terminate this agreement and obtain an alternate provider to provide all required materials. This provision shall not preclude the pursuit of other remedies for breach of contract as allowed by law.

IV. SAVINGS CLAUSE

This Agreement shall be interpreted, construed and enforced under the laws of the State of Nebraska. It is understood and agreed by the County and Vendor hereto that if any part, term, condition, or provision of this Agreement is held to be illegal or in conflict with any law of the State of Nebraska or of the United States, the validity of the remaining parts, terms, conditions, or provisions shall not be affected, and the rights and obligations of the County and Vendor shall be construed and enforced as if the Agreement did not contain the particular part, term, condition, or provision held to be invalid.
V. SCOPE OF AGREEMENT

This Agreement, along with the Bid Specifications, and Bid by Vendor contains the entire Agreement between the County and Vendor, and there are no other written or oral promises, contracts or warrants which may affect it. This Agreement cannot be amended except by written agreement of both the County and Vendor. Notice to the County and Vendor shall be given in writing to the agents for each party named below:

County: Ms. Debra Houghtaling
Clerk of Sarpy County
1210 Golden Gate Drive, Suite 1250
Papillion, NE 68046

Vendor: Mr. Andy Blaszak
Associated Fire Protection
4905 S 97th Street
Omaha, NE 68127
IN WITNESS WHEREOF, we the contracting parties, by our respective and duly authorized agents, hereeto affix our signatures and seals in duplicate this 28th day of August, 2018.

(Seal)

ATTEST: 

Sarpy County Clerk

County Of Sarpy, Nebraska,
A body Politic and Corporate

Chairperson
Sarpy County Board of Commissioners

Vendor: Associated Fire Protection
By: AFBSC
Title: Andrew J. Blazak
General Manager
08/13/2018

Approved as to Form:

Deputy County Attorney
2018-135 Addendum 2  
Supplier Response  
Associated Fire Protection  

Event Information  
Number: 2018-135 Addendum 2  
Title: 911 Center FM-200 System Project (Clean Agent Fire Extinguishing Systems)  
Type: Sealed Bid - Public  
Issue Date: 7/9/2018  
Deadline: 8/10/2018 09:30 AM (CT)  

Associated Fire Protection Information  
Contact: Andy Blaszak  
Address: 4905 South 97th Street  
Omaha, NE 68127  
Phone: (402) 733-2800  
Fax: (402) 344-7469  
Toll Free: (800) 550-1237  
Email: ablaszak@associatedfire.net  

I certify that this bid is submitted in accordance with the specifications issued by Sarpy County. I affirm that the original Specifications have not been altered in any way. Any alteration of the original Specifications, outside of an alternate bid, may be considered grounds for refusal of the bid.  
Randy Roger Sherry  
Signature  
rsherry@associatedfire.net  
Email  
Submitted at 8/9/2018 3:54:51 PM  

Requested Attachments  

Bid Bond  
Sarpy County Bid Bond.pdf  
A copy of supplier's bid bond must be attached here. Original copies are required within five (5) days of request, if requested by the Purchasing Department.  

Literature & Warranty Information  
Response Attachments

K-76-800_SCREEN (ARIES NetLink Panel).pdf
This is a data sheet of the proposed alarm detection equipment for this project

Blaszak, Andrew J FPE NE E-16874 (Exp 2019-12-31).pdf
AFP employs a Fire Protection Engineer to review and approve all drawings when completed. This is a copy of his current license

Bid Attributes

1 Acknowledgments

2 Standard Terms and Conditions
I acknowledge reading and understanding the Standard Terms and Conditions.
Acknowledged

3 Sample Contract
I acknowledge reading and understanding the sample contract.
Acknowledged

4 Specifications
I acknowledge reading and understanding the specifications.
Acknowledged

5 Company Information

6 Company Information - Years in Business
25

7 Company Information - Number of Employees
41

8 Company Information - Total Sales for the Last Three (3) Years
$18,700,000.00

9 References

10 Reference #1

11 Reference #1 - Company Name
Nebraska Central Telephone Company

12 Reference #1 - Contact Name
Kevin McGregor

13 Reference #1 - Email
kmcgregor@nctc.com
# Reference #1 - Phone Number
(308) 468-6341

# Reference #2 - Company Name
Northern Natural Gas

# Reference #2 - Contact Name
Lee A. Brungardt, PE

# Reference #2 - Email
lee.brungardt@nngco.com

# Reference #2 - Phone Number
(402) 398-7637

# Reference #3 - Company Name
Hausmann Construction

# Reference #3 - Contact Name
Matt Miller

# Reference #3 - Email
mattm@hausmannconstruction.com

# Reference #3 - Phone Number
(402) 438-3230

# Project Schedule

## Project Start Date
9/2/2018

## Project Completion Date
9/21/2018

# Bid Lines

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ASSOCIATED FIRE PROTECTION (AFP CORPORATION) CAPABILITIES STATEMENT

Associated Fire Protection is a small business concern headquartered in Omaha, NE that has provided fire protection subcontracting services since 1993. AFP primarily performs work throughout the greater Midwest region (~500-700 mile radius from Omaha). However, AFP has performed installation, start-up, and commissioning services across the United States and internationally on all continents (except Antarctica).

From our 16,000 ft² facility, 40 employees strive to provide the highest quality to clients of all sizes, ranging from small commercial and residential to large industrial, government, and campus settings. At AFP, it is essential that we work towards continuously improving every aspect of our company by identifying and analyzing all lessons learned both internal and external.

Under this approach, AFP has been able to adapt and grow under all market conditions. It is our endless pursuit of improvement that has helped to develop the culture internally at AFP of high quality at a fair price which is embodied within our company’s Mission of:

Ending peace of mind by protecting life and property since 1993

Since July 2013, AFP has been an ISO 9001 Certified Company and in November 2017, successfully transitioned to the New ISO 9001:2015 Standard. AFP is ISO 9001 certified in the:

- Design, manufacturing and delivery of electrical, electronic and mechanical assemblies and equipment packages for the Custom Assembly & Packaging Division.
- Design, installation, service and aftermarket support of fire protection and life safety systems.

The Quality Policy at AFP is to:

- Provide custom assemblies, equipment packages, fire protection & life safety systems, ongoing service, and aftermarket support by meeting the requirements of our customers, completing projects on time that are correct the first time, and focusing on continual improvement.

CORE COMPETENCIES

AFP specializes in the design, installation, and 24/7/365 service and aftermarket support of all types of fire protection and safety systems, including:

- **Fire Protection Systems**
  - Fire Alarm
  - Mass Notification
  - System Networking & Integration
  - Fire Extinguisher
  - Kitchen Hood
  - Dry & Wet Chemical
  - Vehicle & Heavy Machinery
  - Fire Sprinkler
    - Deluge
    - Dry Pipe
    - Wet Pipe
  - Pre-Action
  - Fixed Spray
  - Foam

- **Special Hazard Protection Systems**
  - Classified & Explosive Area Protection
    - Aspirating Smoke Detector
      - (Air Sampling)
    - Gas & Leak Detection
    - Combustible Gases
    - Toxic / Noxious Gases
  - Flame Detection
  - Linear Heat Detection

“Total Fire Protection for Business and Industry”

AFP is an ISO 9001:2015 Certified Company
AFP is an ISO 9001:2015 Certified Company

- Gaseous & Specialized Fire Suppression
  - Argonite
  - FM-200
  - Nitrogen
  - Novec 1230
  - Low & High Pressure CO₂
  - HI-FOG High Pressure Water Mist

- Explosion Prevention & Protection
  - Spark Detection
  - Venting
  - Suppression

**CUSTOM ASSEMBLY & PACKAGING DIVISION**

In addition to field installation and service, AFP’s Custom Assembly & Packaging (CAP) division specializes in the manufacturing and assembly of custom products, assemblies, and kits designed and packaged to streamline and fast-track field installations as well as allowing our clients to become increasingly productive with their current resources when completing work themselves.
This is to certify that

AFP Corporation
Dba Associated Fire Protection
4905 South 97th St., Omaha, Nebraska 68127 USA

operates a

Quality Management System

which complies with the requirements of

ISO 9001:2015

for the following scope of certification

Design, manufacturing and delivery of electrical, electronic and mechanical assemblies and equipment packages for the Custom Assembly & Packaging Division. Design, installation, service and aftermarket support of fire protection and life safety systems.

Certificate No.: CERT-0106598
File No.: 1639641
Issue Date: November 2, 2017

Original Certification Date: July 15, 2013
Certification Effective Date: October 31, 2017
Certificate Expiry Date: October 30, 2020

Nicole Grantham
General Manager SAI Global Certification Services

Registered by:
QMI- SAI Canada Limited (SAI Global), 20 Carlson Court, Suite 200, Toronto, Ontario M9W 7K8 Canada. This registration is subject to the SAI Global Terms and Conditions for Certification. While all due care and skill was exercised in carrying out this assessment, SAI Global accepts responsibility only for proven negligence. This certificate remains the property of SAI Global and must be returned to them upon request.
To verify that this certificate is current, please refer to the SAI Global On-Line Certification Register: www.qmi-saiglobal.com/qmi_companies

SAI GLOBAL
INFORM. INSPIRE. IMPROVE.
What are the Benefits of working with a company that has received an ISO 9001:2015 Certification

ISO International Standards ensure that products and services are safe, reliable and of good quality. For business, they are strategic tools that reduce costs by minimizing waste and errors and increasing productivity. They help companies to access new markets, level the playing field for developing countries and facilitate free and fair global trade.
Associated Fire Protection® has achieved a ISO 9001:2015 Certification...

Our Quality Policy

AFP® provides our clients custom assemblies, equipment packages, fire protection & life safety systems, ongoing service and aftermarket support by meeting the requirements of our customers, completing projects on-time that are correct the first time, and focusing on continual improvement.

At AFP®...We Do It Right the First Time!

Our Projects start and end with a quality process in mind. Saving you time and money.

Since 1993...

WORLD-WIDE EXPERIENCE

Our commitment and focus on quality is SECOND TO NONE
OUR MARKETS

POWER
- Power Plants
- Substations
- Transfer Facilities
- Portable Power Plants
- Power Delivery

BUILDINGS
- Commercial
- Industrial
- Manufacturing
- Retail

MISSION CRITICAL
- Data Centers
- Control Centers
- Health Care Facilities
- Government Facilities

We Value: People, Integrity, Excellence and Stewardship
COMMUNICATIONS
- Monitoring
- Facility Management
- Life Safety & Evacuation
- Facility Communication
- And Notification

FOOD PROCESSING
- Restaurants
- Processing Facilities
- Warehouse Storage

SERVICE
- Fire Alarm Systems
- Sprinkler Systems
- Fire Extinguishers
- Hazard Analysis
- Design

Commitment: AFP® is committed to our valued customers
What are the Benefits of AFP’s Custom Assembly & Packaging

This custom assembly and packaging division (CAP) provides ISO 9001:2015 certified design, assembly and packaging. Our CAP specialists ensure that the customer’s products are delivered on time and are right the first time. We work closely with every end-user to ensure all requirements are met and each product design, assembly and process is continuously improved.

We support and encourage NICET certification
Custom Solutions for Industrial & Commercial Applications

AFP’s Systems Division NICET certified designers provide the appropriate life safety and fire protection system for your specific construction design requirements. They install, program and commission new and retrofit fire alarm, fire suppression and smoke evacuation systems. These systems are assembled and control components bench tested allowing greater quality control and ease of installation.
What benefits do our industrial and commercial clients realize when working with our Systems and Special Hazard Division?

AFP offers affordable custom Special Hazard solutions specifically designed to meet the needs of our industrial and commercial clients when they are seeking to protect mission critical areas, quickly upgrading current facilities or when constructing a new facility. We strive to lessen the onsite time requirements by prefabricating and testing components allowing for greater quality control, ease of final installation and commissioning.
Custom Solutions for Industrial and Commercial Applications

No construction project is identical. Similarly, designed buildings must adhere to varying local codes and standards. For this reason, AFP® provides custom design solutions for every construction type, driven by our ISO 9001 process and strictly adhering to all local codes.

Prior to installation, all designs are submitted to appropriate code enforcement officials for approval.
AFP® supplies quality sprinkler and alarm systems that meet or exceed your construction requirements and local codes

We can help you protect your valuable assets by providing suitable designs and installation of pre-action, dry and wet pipe, deluge and fixed spray fire sprinkler systems that meet your construction requirements.
AFP provides inspection, technical support and maintenance for fire alarm, fire suppression systems and fire extinguishers

AFP’s certified inspectors are available to check your fire protection system at regular intervals to ensure that your facility remains up-to-date and compliant with all local fire protection codes.

THE RIGHT SYSTEM FOR THE RIGHT JOB...

♦ FIRE SUPPRESSION  ♦ FIRE / GAS ALARM AND DETECTION SYSTEMS  
♦ LINEAR FIRE DETECTION  ♦ EARLY WARNING DETECTION  
♦ MONITORING AND NETWORK SYSTEMS  ♦ VIDEO SMOKE DETECTION
AFP’s **SMART SYSTEM**... the most advanced Life Safety Notification & Control System available. The days of costly proprietary systems are over!

Utilizing your current IP infrastructure AFP® can provide you the state-of-the-art Life Safety systems for your campus, industrial complex, commercial complex, municipal buildings, police departments and more.

By combining and integrating disparate systems, we’ve helped reduce the restrictions and cost inherent in maintaining separate ‘proprietary’ systems. Once the information is converted to an IP protocol, it is no longer proprietary.
SMART SYSTEM & MNS+ Features Include:

- System is scalable so enhanced features can be added as needs and budgets become available.
- Packages include all hardware and software necessary to implement Local, Wide-Area, and Internet based Mass Notification Systems.
- Full, supervised control utilizing existing Ethernet infrastructure.
- The system can integrate and network proprietary and legacy Fire Panels.
- No need to retrofit existing equipment.
- Can be added to your current IP or using Fluid Mesh can connect facilities up to 25 miles away.
- It can utilize existing systems, adding Voice Evacuation where it doesn’t currently exist.
- Provides for real-time, facility-wide Weather and Intruder Alerts, Lockdown and all Mass Notifications warnings in real-time through existing Voice Evacuation Systems regardless of make.
At AFP® our experience extends to our clients around the world from Ireland, to China to the USA

For over twenty-years our experienced designers and technicians are prepared to provide design, installation and commissioning of systems with our ISO 9001:2015 quality driven process on projects around the world.
ARIES NETLink™
Multi-Loop Intelligent Fire Alarm-Suppression Control Unit

FEATURES
• Multi-loop, intelligent, suppression-focused control unit
• Out-of-the-box features
  - 2 SmartOne SLC with 255 unrestricted addresses each
  - 4 x 40 Display-Keypad
  - 2 NACs & 2 R-NACs
  - 3 Programmable & 1 Trouble Form-C Relays
  - 2 Auxiliary Power Outputs
  - USB ports for PC & printer
  - RS-232 ports for Graphics
  - 4 Programmable soft-switches
  - 120/240 V 50/60 Hz AC input
  - 5.4 A Power Supply Unit
  - 2-Tier or 3-Tier NEMA 1 Enclosure – fits between 16” studs
  - RS-485 Annunciator bus
• Reliable and dependable suppression control features
  Triple-R redundancy
• Suppression systems include:
  - FM-200, FE-13, 3M Novec 1230 Fire Protection Fluid, Carbon Dioxide, Argonite & Halon Clean Agents
  - Dry Chemical, Wet Chemical
  - Water-Mist
  - Sprinkler Supervisory Service
  - Deluge, Pre-Action, Foam, Foam-Water Systems
• Modular expandable
  - From 3 to 8 SLCs (2,040 addresses)
  - Functional and Expansion Modules
  - Power Supply
  - Networkable up to 64 nodes with 130,560 addresses across network
• Event-Output-Control programming
• High level serviceability and diagnostics
  - Ground fault detection by circuit
  - 10,000 event log capacity
• Backwards compatible with installed investment
  - SmartOne SLC devices & protocol
  - Kidde Control Heads
  - Actuators
  - Legacy PEGAsys panels via simple retrofit kit
• Seamlessly integrated HSSD, ASD and LHD
• Internet connectivity with e-mail notification feature
• Pleasing aesthetics
• Pluggable terminal blocks
• FM Approved to ANSI/UL864
• UL Listed No. S2422
• cUL Listed No. S2422
• CSFM Approved: No. 7165-1076:0195
• NYC Fire Department Certificate of Approval: No. 6092
• City of Chicago Acceptable for Class 1 Applications

DESCRIPTION - CONTROL UNIT
The ARIES NETLink™ is one of the most technologically advanced intelligent fire alarm-suppression-focused control units available to the industry today. It combines the high quality, system reliability, and flexibility required by modern commercial, high-tech and industrial applications in an aesthetically pleasing and physically robust package. Its modular architecture enables easy field expansion from the base 2-SLC unit that supports 510 addressable devices (255 per circuit) to an 8-SLC system capable of 2,040 addressable devices. Despite its compact fit-between-wall-studs dimensions, the ARIES NETLink is designed to be quick and easy to install. Cutting edge technologies incorporated in the electronics design enable diagnostics for time-efficient commissioning.

Main Controller Board - MCB
The ARIES NETLink’s main printed circuit board contains the system’s central processing unit (CPU) and all of the primary circuits. The MCB is the heart of the system, controlling the operation and supervision of all the system modules and software. It receives loop device data, processes the data based on pre-programmed instructions, and transmits output commands to the output modules, field devices, and display(s). The MCB is mounted to the enclosure using special design hinged stand-offs which permit the board to swing left and enable easy access to the PMU/PSU assembly behind.

User Interface
The user interface consists of a built-in keypad and a display which provide physical means by which an operator and/or installer performs system functions, enters the security password, operates soft keys, navigates the system menus, configures and tests the entire ARIES NETLink system.
Figure 1. Modular Design to Meet the Most Demanding Applications
Figure 2. Main Controller Board and User Interface

MAIN CONTROLLER BOARD SPECIFICATION

**MCB Signaling Line Circuits**
- **Number of Circuits:** Two
- **Device Capacity:** 255 devices per SLC
- **Device Type Restriction:** None
- **Wiring Classes:** Class A, B or X
- **T-Tapping Allowed:** Class B only
- **Circuit Voltage:** Nominal 24 VDC
- **Maximum Line Resistance:** 40 ohms per loop
- **Maximum Capacitance:** 0.5 µF
- **Maximum Current:** 350 mA (short circuit)
- **Wiring Specifications:** Twisted #14AWG - #18AWG, unshielded, low-capacitance wire with a nominal wire-to-wire capacitance of approximately 20 pf.

**MCB Notification Appliance Circuits**
- **Number of Circuits:** Two
- **Compatible devices:** 24 VDC polarized horns, strobes, bells, etc.
- **Wiring Classes:** Class A or B
- **Power Limited:** Yes

**MCB Release/Notification Appliance Circuits**
- **Number of Circuits:** Two
- **Individually Configurable for Notification or Release:** Yes
- **Notification Specifications:** Same as NAC
- **Release Specifications:**
  - **Compatible devices:**
    - Kidde Control head: max 1
    - Water Mist Solenoid valve: max 1
    - FM Group A, B, D, E, F, G, I, J or K Solenoid: max 1
    - Metron actuator: max 1
  - **Wiring Classes:**
    - Solenoids: Class A or B
    - Actuators: Class B
  - **Power Limited:** Yes, requires In-Line diode device
  - **Maximum Output Circuit Terminal Voltage:** 28 VDC
  - **End-of-Line Resistor:** 10 K, 5%, 1/2 W
  - **Allowable Voltage Drop:** 2 V

**MCB Relays**
- **Number and type:** 3 Programmable and 1 Trouble Relay
- **Relay Form:** Form-C (1 NO + 1 NC)
- **Rating:** 3A @ 30 VDC/120 VAC
MAIN CONTROLLER BOARD SPECIFICATION (Continued)

MCB RS-232 Serial Ports
Number of Ports: 2
Specifications: Bi-Directional 9600 Baud, 8 Data Bits, 1 Stop Bit, No Parity

MCB RS-485 Annunciator Port
Number of Ports: 1
Compatible Devices:
- RDCM Max. 15 devices
- R-LAM Max. 16 devices
- ATM-L Max. 16 devices
- ATM-R Max. 16 devices
Compatible Device Maximum: 31 in any combination
and in any order
Wiring Type: Twisted, shielded, low-capacitance fire alarm wire
Wiring Minimum Size: AWG 18
Maximum wire length: 4,000 ft. (1,219 m)

MCB USB Device Ports:
Number of Ports: 2

Power Supply
The ARIES NETLink Control Unit requires a minimum of one Power Supply Unit and one Power Management Unit (PMU) Board for operation. Additional Power Supply Units may be added, based on calculated power requirement (refer to Battery Calculations in the ARIES NETLink Installation, Operation, and Maintenance Manual, P/N 06-237058-001).

One PMU board is needed to control up to 2 Power Supply Units. The ARIES NETLink Control Unit design offers optional Power Supply Units and Power Management Unit (PMU) Board to expand the available power to meet additional power requirements.

Each enclosure of the ARIES NETLink Control Unit can provide 20 Amps of power supply capacity and the system can charge up to 165-AH batteries for US applications and 132-AH batteries for Canadian applications.

POWER SUPPLY & MANAGEMENT SPECIFICATION

| Number of PMUs per control unit | Minimum: 1 | Maximum: 4 |
| Number of PSUs per PMU | Minimum: 1 | Maximum: 2 |

Primary AC Input Power:
- 1 PSU: 120 VAC, 50/60 Hz, 3.2 A
  240 VAC, 50/60 Hz, 1.6 A
- 2 PSU: 120 VAC, 50/60 Hz, 6.4 A
  240 VAC, 50/60 Hz, 3.2 A

Allowable Input Voltage Variation: 115 ± 5% VAC
Secondary DC Output:
- 1 PSU: 5.4 A @ 27.6 VDC
  10.8 A @ 27.6 VDC
- 2 PSU: 5.4 A @ 27.6 VDC

Voltage Selection: Slide switch on PSU
Trouble Relay Contact Rating: 1.0 A @ 30 VDC (resistive)

AC to Battery Transfer Voltage:
- 120 VAC: 109 VAC
- 220 VAC: 200 VAC

Battery Charging Circuit Voltage: 27.0 VDC (nominal)
Maximum Battery Charging Circuit Current:
- 1 PSU: 4 A
- 2 PSU: 8.9 A

Allowable Battery Type: 2 x 12 VDC Sealed Lead-Acid Only
Maximum Battery Capacity: UL/FM: 165 AH
ULC: 132 AH
Auxiliary Outputs: 2 per PMU, power-limited
Auxiliary Output Operating Voltage Range: 19.2 - 27.6 VDC
Auxiliary Output Maximum Current: 2 A @ 470 µF max. per output
The Card Cage is a metal frame which supports and secures up to six Expansion/Functional Cards plugged into the Backplane. The frame is fixed to the Backplane and mounts to the enclosure in the second- or third-tier positions. A fully expanded ARIES NETLink system can accommodate a maximum number of four Card Cages or 24 card slots in total. Unlike installation intensive control units, the ARIES NETLink features virtually plug-and-play architecture in that the control unit is intelligent enough to detect the type of card plugged in.

Figure 3. Backplane and Card Cage

### CARD CAGE SPECIFICATION

<table>
<thead>
<tr>
<th>Module Capacity each:</th>
<th>Maximum 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Card Cages:</td>
<td>Maximum 4 per MCB</td>
</tr>
<tr>
<td>Number of Expansion/Functional cards:</td>
<td>Maximum 24 per MCB</td>
</tr>
</tbody>
</table>

#### Signaling Line Circuits - SLC

The Main Controller Board incorporates two SLC circuits. At the rate of one SLC per expansion card, up to six additional circuits can be included in one control unit. The Expansion Card occupies a single slot in the Card Cage Assembly and plugs directly into the backplane.

All SLC’s are suitable for Class A, Class B and Class X wiring. A disconnect switch provides the means to physically isolate the circuit from its associated field wiring. Communications LEDs indicate data transmission (green) and reception (yellow) and a Status LED indicates module energized state (green) and de-energized state (yellow).

The ARIES NETLink is compatible with all SmartOne protocol based devices. The SmartOne communication protocol is called Broadcast Index Polling (BIP). The BIP enables each of the 255 initiating device on the SLC to communicate with the panel on an individual basis in an intelligent system. BIP imposes no limitations on the mix of automatic initiating devices and monitor/control modules on the signaling line circuit. Each SmartOne initiating device has a microprocessor, memory, and decision-making algorithms to interrupt normal control-unit communications and initiate an alarm signal. The BIP communication protocol divides the potential 255 addresses on the SLC loops into 8 groups of 32 addresses each and the panel constantly samples the groups for fire signatures. Once a fire signature is detected, the panel narrows down to the group with the SmartOne device(s) initiating the signature and further to the particular address initiating the fire signature.

The SmartOne smoke detectors manage their individual drift compensation routines, and have pre-alarm and alarm thresholds that are configurable in 0.1 percent-per-foot increments throughout the entire range of listed sensitivities. The ARIES NETLink can dynamically adjust the smoke detector alarm thresholds as the result of one or more alarm-initiating events to confirm that a fire requiring the rapid action of an associated extinguishing system has occurred. SmartOne smoke detectors can also be configured for non-latching operation that requires them to measure smoke signatures in excess of their alarm thresholds for the entire pre-discharge time period in order to discharge the extinguishing system. This prevents a transitory event that mimics a smoke signature such as the leakage of air-conditioning fluid from accidentally discharging the extinguishing system. SmartOne heat detectors have pre-alarm and alarm thresholds that are programmable in 1°F intervals.

### SLC EXPANSION CARD SPECIFICATION

<table>
<thead>
<tr>
<th>Number of Cards:</th>
<th>Subject to slot availability, max 6 per MCB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit Specifications:</td>
<td>Same as SLC on MCB</td>
</tr>
</tbody>
</table>

#### NACs & R-NACs

The Main Controller Board incorporates two Notification Appliance Circuits and two user-configurable Releasing/Notification Appliance Circuits. The system can be expanded by adding R-NAC cards to the backplane. The Expansion Card occupies a single slot in the Expansion Card Cage Assembly and plugs directly into the backplane. Each R-NAC card provides three Releasing-Notification circuits similar to the R-NAC circuit on the MCB.
Given adequate power, the number of R-NAC Expansion Cards in a system is limited only by the availability of card slots – which itself is limited to 24.

Notification Appliance Circuits can be wired as Class A or Class B and support 24 VDC polarized appliances such as horns, strobes and bells. Strobes can be either synchronized or non-synchronized.

The Releasing Circuits can be wired as Class A or Class B and configured to activate agent control heads. The circuit-on time is configurable from 55 microseconds, 90 seconds, 10 minutes, 15 minutes, or On-To-Reset, dependant on the release device and suppression system. While the circuits are power limited, utilizing this option for releasing requires the use of a field In-Line Release Device – separate for solenoids and actuators. An NFPA-72 compliant disconnect switch provides the means to physically isolate the circuit from its associated field wiring.

### R-NAC EXPANSION CARD SPECIFICATION

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Cards:</strong></td>
<td>Subject to slot availability, max 24 per MCB</td>
</tr>
<tr>
<td><strong>Number of Circuits Per Card:</strong></td>
<td>Three</td>
</tr>
<tr>
<td><strong>Circuit Specifications:</strong></td>
<td>Same as R-NAC on MCB</td>
</tr>
</tbody>
</table>

### Triple Redundancy Protection

Unlike some generic fire alarm control units adopted for releasing service, at its core the ARIES NETLink is suppression-focused. Featuring the exclusive Triple-R redundancy safeguard wherein no single component failure or combination of abnormal operating conditions, including main microprocessor failure, is allowed to result in accidental release activation, the ARIES NETLink provides the same high quality, dependability and maximum protection against inadvertent release that have been the hallmark of Kidde suppression panels for decades. The Triple-R system requires that in order to activate a release, the main microprocessor issue two release commands of opposite polarity via separate signaling channels and that these commands combine with a signal from the control unit’s watchdog timer to confirm the microprocessor operation. The Triple-R system ensures that electrical transients or disturbances such as power surges that could interfere with the operation of the main microprocessor will not inadvertently activate the connected suppression system. The result is a more robust and reliable suppression control unit.

### RELAY EXPANSION CARD SPECIFICATION

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Relays Per Card:</strong></td>
<td>Four</td>
</tr>
<tr>
<td><strong>Relay Specifications:</strong></td>
<td>Same as Relays on MCB</td>
</tr>
</tbody>
</table>

### City Tie Card

The optional City Tie Card provides connection and operation for three independently operated signaling circuits used to connect to Municipal Tie inputs as either Local Energy output, Shunt-Type Master Box output or Reverse Polarity output. The City Tie Card occupies a single slot in the Card Cage Assembly and plugs directly into the backplane. The ARIES NETLink allows one City Tie Card per control unit.

### CITY TIE CARD SPECIFICATION

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Cards:</strong></td>
<td>Max 1 per control unit</td>
</tr>
<tr>
<td><strong>Number of Circuits Per Card:</strong></td>
<td>Three</td>
</tr>
<tr>
<td><strong>Local Energy Type:</strong></td>
<td>24 VDC @ 550 mA maximum</td>
</tr>
<tr>
<td><strong>Shunt-Type Master Box:</strong></td>
<td>24 VDC @ 5 A maximum</td>
</tr>
<tr>
<td><strong>Reverse Polarity Type:</strong></td>
<td>24 VDC @ 100 mA maximum</td>
</tr>
</tbody>
</table>
Networking
For large areas or campus style-applications, ARIES NETLink control units can be networked into a powerful system capable of supporting 130,560 addressable devices. The ARIES NETLink has the capability to provide true peer-to-peer networking of up to 64 control units. Added functionality is provided when the Remote Display Control Module (RDCM) are connected to the individual control panels and hence into the interconnection scheme. The network is capable of performing fire-alarm and/or suppression system operations on a network-wide basis:

- Event initiation
- Protected-premises local and/or remote event annunciation
- Occupant notification via audible and visible signaling appliances
- Process/equipment control to activate safety procedures
- Fire extinguishing system release
- Off-premises transmissions to central station or fire department

The network provides several convenient interconnect programming schemes wherein control panels can be configured individually or within created groups of control panels. When utilizing the grouping configuration, the interconnection automatically provides shared alarm and trouble responses. The programmable shared responses are: acknowledge, silence, reset, event logging and logic statements. Operator events can be activated into the interconnection via the control panels or any annunciator. A location address and programmable description is used to identify the panel initiating the event.

Network Interface Card – NIC
The Network Interface Card regenerates and boosts network communications between control units and electrically isolates the networked units from each other. All ARIES NETLink units must contain a NIC to be networked to one another. The NIC occupies a single slot in the Card Cage Assembly. Using the NIC, the control units transmit and receive messages via RS485 format over a twisted pair. An optional Fiber Optic Converter Module (FOCM), in addition to the NIC, allows connectivity via a fiber optic medium. The networking structure supports a mixture of fiber-optic and twisted-wire interconnections among networked control units. The network structure also supports up to 4,000 ft. long 18 AWG of copper wire between nodes (control units).

<table>
<thead>
<tr>
<th>NETWORK INTERFACE CARD (NIC) SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Cards:</td>
</tr>
<tr>
<td>Number of nodes in network:</td>
</tr>
<tr>
<td>Wiring Classes:</td>
</tr>
<tr>
<td>Data Ports:</td>
</tr>
<tr>
<td>Baud Rate:</td>
</tr>
<tr>
<td>Recommended Wiring:</td>
</tr>
<tr>
<td>Maximum Recommended Length:</td>
</tr>
</tbody>
</table>

Fiber Optic Converter Module – FOCM
A fiber-optic option is available for network applications (NIC card also required) with communication paths greater than 4,000 ft. or where excessive electrical noise is present. The FOCM is a bi-directional, externally-powered unit which is wall mountable in the standard ARIES NETLink remote enclosure. One FOCM is required at both interconnected ARIES NETLink control units for a single communication channel.

For short transmission distances (under 1 mile), such as within a building or on a campus, multi-mode optical fiber (MM fiber) can be used (62.5 μm core size/125 μm cladding diameter). For longer transmission distances (up to 12 miles), single-mode (SM fiber) can be used (8.3 μm core size/125 μm cladding diameter). Either type of fiber may be used and both connect to the ARIES NETLink power and RS-485 data lines in the same fashion.

The FOCM is shipped standard with one converter channel. For greater communication security and redundancy, a second converter channel may be added. This is most effective if the second channel is installed in a different pathway from the first.

<table>
<thead>
<tr>
<th>FIBER OPTIC CONVERTER MODULE (FOCM) SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Voltage:</td>
</tr>
<tr>
<td>Operating Current:</td>
</tr>
<tr>
<td>Data Ports:</td>
</tr>
<tr>
<td>Max. Recommended Length for MM Fiber:</td>
</tr>
<tr>
<td>Max. Recommended Length for SM Fiber:</td>
</tr>
<tr>
<td>Baud Rate:</td>
</tr>
<tr>
<td>Temperature Range:</td>
</tr>
<tr>
<td>Humidity Range:</td>
</tr>
<tr>
<td>Enclosure Dimensions (H x W x D):</td>
</tr>
</tbody>
</table>
Digital Alarm Communicator Transmitter – DACT

The communication capabilities of the ARIES NETLink control unit are enhanced with an optional DACT which transmits system status over phone lines to a Central Station. The DACT card includes a built-in modem and two Loop Start Public Switched Telephone Network (PSTN) connections. Status LEDs are provided to indicate data transmission (green) and reception (yellow). An ARIES NETLink system allows one DACT Card per control unit. The DACT card operates on 24 Vdc and supports SIA DC-05-1999.09 Ademco Contact ID and SIA DC-03-1990.01 (R2003.10) protocols.

Digital Alarm Communicator Transmitter (DACT) Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Cards:</td>
<td>Max 1 per control unit</td>
</tr>
<tr>
<td>Operating Voltage:</td>
<td>24 VDC</td>
</tr>
<tr>
<td>Operating Current:</td>
<td>37 mA</td>
</tr>
<tr>
<td>Electrical Interface:</td>
<td>PSTN line using a RJ45 phone jack</td>
</tr>
<tr>
<td>Supported Protocols:</td>
<td>SIA DC-05-1999.09 Ademco Contact ID, SIA DC-03-1990.01 (R2003.10)</td>
</tr>
</tbody>
</table>

Internet Communications Module – ICM

The Internet Communications Module (ICM) can be used to access the ARIES NETLink System via the Internet to view system status and current events and to download the history log. The ICM can be programmed to transmit up to five e-mails upon the occurrence of any unsolicited event in the system. The e-mail message embeds a link with the IP address of the control unit that sent the message for instant access to the remote system. The ICM can be accessed using any standard Web browsing program and requires no special proprietary software. The ICM also allows the ARIES NETLink Control Unit to report as a slave device via the Modbus TCP/IP Protocol to a master monitoring system for automated process control.

Internet Communications Module (ICM) Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supported Field Protocols:</td>
<td>Ethernet - Local Area Network or Wide Area Network (LAN or WAN)</td>
</tr>
<tr>
<td>Modbus/BACnet Interface:</td>
<td>6-pin Phoenix connector, RS232, 3-pin Phoenix connector, RS485, Ethernet-10/100 port</td>
</tr>
<tr>
<td>Supported Field Protocols:</td>
<td>Ethernet - Local Area Network or Wide Area Network (LAN or WAN)</td>
</tr>
<tr>
<td>Modbus/BACnet Specifications:</td>
<td>6-pin Phoenix connector, RS232, 3-pin Phoenix connector, RS485, Ethernet-10/100 port</td>
</tr>
<tr>
<td>Enclosure Dimensions:</td>
<td>7-1/2 x 12-3/4 x 2-3/4 (in.), 191 x 324 x 70 (mm)</td>
</tr>
<tr>
<td>Operating Voltage:</td>
<td>9-30VDC or 12-24VAC</td>
</tr>
<tr>
<td>Operating Current:</td>
<td>150 mA @ 12VDC</td>
</tr>
<tr>
<td>Operating Temperature:</td>
<td>-40F to 187F (-40C to 85C)</td>
</tr>
<tr>
<td>Humidity:</td>
<td>5 - 90% RH, non-condensing</td>
</tr>
<tr>
<td>Data Ports:</td>
<td>RS232, Ethernet</td>
</tr>
<tr>
<td>Max. RS232 Cable Length:</td>
<td>50 ft. (15.2 m)</td>
</tr>
<tr>
<td>Supported Baud Rate for BACnet MS/TP:</td>
<td>9.6 - 76.8K baud</td>
</tr>
</tbody>
</table>

Enclosures

The ARIES NETLink offers two enclosure sizes, 2-Tier and 3-Tier, for both main and expansion enclosures. The enclosures accommodate the MCB, PMU/PSU, Expansion Card Cages and Batteries. The enclosures are sized to fit between standard 16”-spaced wall studs and can accommodate a pair of 12 VDC12-AH or 17-AH SLA batteries (max. 40-AH). The enclosures are painted red, rated NEMA 1 and constructed from 16 AWG cold rolled steel per ASTM A-366. All Kidde enclosures utilize a common key. Despite its compact dimensions, the enclosure allows a minimum of 1.5 in. (38 mm) of wiring space between the wall and any wiring terminal. Multiple knockouts provide flexibility in wiring entry.
**Dead Front Covers**
A sheet-steel dead-front cover may optionally be mounted between the door and electronics to prevent unwanted access to the electronics. With the dead-front installed, an operator has access only to the user interface. A blanking plate (included) may be removed if an integrated LED Annunciator is present. The dead front is typical in ULC/cUL applications.

**Enclosure Trim Ring**
A sheet-steel red-enamel finished trim ring may be mounted around a semi-flush ARIES NETLink enclosure to enhance the Control Unit’s aesthetic appeal after installation.

### Material of Construction:
16 AWG (0.053 in. or 1.35 mm) rolled sheet steel

### Enclosure Rating/
Degree of Protection:
NEMA 1

### Color:
Red (C21136 of Federal Standard 595)

### Enclosure Dimensions (H x W x D):
- **3-Tier:**
  31-1/2 x 14-3/8 x 5-3/8 (in.)
  800 x 365 137 (mm)
- **2-Tier:**
  22-1/2 x 14-3/8 x 5-3/8 (in.)
  572 x 365 137 (mm)

### Dead Front Dimensions (H x W):
- **3-Tier:**
  31-1/3 x 14 (in.)
  796 x 356 (mm)
- **2-Tier:**
  22-5/8 x 14 (in.)
  567 x 355 (mm)

### Trim Ring Dimensions:
- **3-Tier:**
  17-1/2 x 34-5/8 (in.)
  444 x 879 (mm)
- **2-Tier:**
  17-1/2 x 25-5/8 (in.)
  444 x 651 (mm)

**CONTROL UNIT FEATURES**

### Seamless Integration with Specialty Detectors
SmartOne loop protocol interface cards enable the ARIES NETLink to seamlessly integrate with specialty detectors. AIR-Intelligence Air Sampling Smoke Detectors (ASD) and ORION XT High Sensitivity Smoke Detectors (HSSD) connect via Addressable Protocol Interface Cards (APIC) and PEGAsys Addressable Loop Modules (PALM) respectively and report pre-alarms and alarms in a manner analogous to SmartOne smoke detectors. AlarmLine Integrating Linear Heat Detector sensors (LHD) connect via AlarmLine Addressable Modules (AAM) and report pre-alarms and alarms similar to a Smart-One heat detector. Fixed Temperature Linear Heat Sensor cables (LHS) connect via Addressable Input Modules (AI) and report point alarms.

### Field Programming Options
The ARIES NETLink Configuration Software (ACT8000) tool is used to program the control unit for each individual site-specific application. Programming is for control-by-event scenarios and consists of entering a series of conditional control statements that logically join initiating points to control-unit-based outputs and remote control modules. Each SmartOne field device can be assigned a location message of up to 40 characters via the configuration tool. A USB Device Port is available to connect a laptop computer for application upload.

An AutoLearn routine that creates a general alarm (one-input-activates-all outputs) application can be invoked from the User Interface to speed the configuration process. A more sophisticated Auto-Setup routine which automatically configures the control unit for a typical waterless fire-suppression system can also be invoked.

### Automatic SLC Device Testing
The ARIES NETLink features an exclusive automatic SLC device testing protocol. With this cutting edge supervisory technology, the control unit routinely checks all SLC devices in groups of 32 for operational status. If a group fails, the control unit then interrogates at lower level in that group and pin-points and reports the malfunctioning device on the User Interface within seconds.

### Duplicate Address Detection
Electronic device addressing is via the Handheld Programmer (HHP). The fully-digitized ARIES NETLink Control Unit protocol has the ability to monitor the SLC for devices with duplicate addresses. Should such duplication be detected, the control unit displays these addresses on the User Interface – thereby reducing the overall configuration time.

### Battery Life Tracking
The ARIES NETLink software includes an optional Battery Monitoring Mode which can track battery lifetime from the original install date and emit an audible signal on the replacement due date.

### Annunciator Bus
The Main Controller Board includes an RS485 bus which can communicate with up to a total of 31 Remote Annunciators. These include up to 15 RDCM Remote Display/Control Modules and up to 16 LED Annunciator Modules. This capability can be expanded to include up to 16 legacy ATM-R and ATM-L Annunciator Terminal Modules.
CONTROL UNIT ACCESSORIES

Large Capacity Battery Cabinet
An optional NEMA-1 surface-mount Battery Cabinet is available for a pair of up to 12 VDC 40-AH sealed lead acid batteries. The cabinet is designed to be located within 100 feet of the control unit. The red painted cabinet is constructed of cold-rolled steel as other available Kidde enclosures. The door is hinged on the left and includes the same lock and key used with all Kidde enclosures. Three conduit knockouts are provided at the top to accommodate either ½ inch or ¾ inch standard electrical conduit fittings.

REMOTE BATTERY ENCLOSURE SPECIFICATION

<table>
<thead>
<tr>
<th>Accommodates:</th>
<th>Up to 2 x 12 VDC 12-AH or 17-AH Battery (max 40 AH)</th>
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</thead>
<tbody>
<tr>
<td>Material of Construction:</td>
<td>18 AWG (0.053 in. or 1.35 mm) rolled sheet steel</td>
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<tr>
<td>Enclosure Rating/Degree of Protection:</td>
<td>NEMA 1</td>
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<tr>
<td>Color:</td>
<td>Red (C21136 of Federal Standard 595)</td>
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<tr>
<td>Enclosure Dimensions (H x W x D):</td>
<td>12 x 20 x 8-1/4 (in.) 305 x 508 x 210 (mm)</td>
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</tbody>
</table>

REMOTE ANNUNCIATORS

Remote Display Control Module - RDCM
RDCMs are user interfaces that replicate the ARIES NETLink and can be located remotely from the main enclosure so as to accomplish system control from multiple locations. RDCMs display all system events and allow full system control and operator intervention via an LCD display, keypad, buzzer, five (5) system status LEDs and four (4) user-programmable soft-keys. A synchronization signal output allows expansion of up to 15 RDCM units. RDCMs are wall mountable in their own discrete enclosures and operate on 24 VDC sourced from either the ARIES NETLink Auxiliary Power Output or listed external power supply.

REMOTE DISPLAY CONTROL MODULE (RDCM) SPECIFICATION

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<th>Number of RDCMs:</th>
<th>Max 15 on Annunciator Bus</th>
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<tr>
<td>Power Input:</td>
<td>150 mA maximum @ 24.0 VDC</td>
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<tr>
<td>Input Capacitance:</td>
<td>100 µF max.</td>
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<tr>
<td>PMU Trouble Relay Input:</td>
<td>Short = normal; open = fault</td>
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<tr>
<td>Synch In/Out:</td>
<td>3.3 VDC Logic</td>
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<tr>
<td>Wiring Type:</td>
<td>EIA/TIA-485, twisted unshielded pair, maximum capacitance 15 pF per ft.</td>
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<tr>
<td>Wiring Minimum Size:</td>
<td>AWG 18</td>
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<tr>
<td>Maximum wire length:</td>
<td>4,000 ft. (1,219 m)</td>
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Remote LED Annunciator Module - R-LAM
R-LAMs are annunciators that provide 48 independently programmable LEDs. Each LED is dual color (red and yellow) and has space available for an identification label. R-LAMs include three system-level LED outputs for Module Power, System Trouble and Signal Silenced. Also included are system-level input functional switches for Signal Silence and System Acknowledge/Self-Test commands. R-LAMs are mounted remotely from the main enclosure and utilize the same remote enclosures as do RDCMs. LED Annunciator Modules can also be mounted within the main ARIES NETLink enclosure for ULC/cUL applications.

Figure 4. RDCM

Figure 5. R-LAM
RETOFITTING LEGACY INSTALLATIONS

Legacy PEGAsys Control Unit Retrofit Kit

Installed PEGAsys control units can be upgraded to ARIES NETLink level by utilization of a retrofit kit. The retrofit kit consists of ARIES NETLink electronics, power supply and a door for the installed PEGAsys enclosure. The kit enables the PEGAsys electronics to be replaced without disturbing the original enclosure-backbox and conduits; thus maintaining the customers’ investment in devices, suppression and wiring. The retrofit door is sized for the PEGAsys enclosure while its window is aligned with the ARIES NETLink.

ARIES NETLink RETROFIT KIT (P/N 76-800400-001)

The retrofit kit consists of the following parts:

- Base Plate qty. 1
- Base Plate Bracket qty. 1
- Replacement Door qty. 1
- Retrofit Installation Hardware qty. 1
- PSU with wiring harness to PMU Board qty. 1
- PMU Installation Hardware Kit qty. 1
- MCB, complete with UI and mounting hardware qty. 1
- MCB Installation Hardware Kit qty. 1
- ARIES NETLink System Installation/Configuration Kit qty. 1

OPTIONAL ADD-ONS TO BOTTOM TIER OF LEGACY BACKBOX: (room for only one from list below)

- Card Cage Assembly with backplane, bracket, hardware and cables, P/N 76-800010-001 qty. 1
- Additional PSU/PMU Assembly with bracket and hardware, P/N 76-800030-003 qty. 1
- Standby Batteries one pair

REMOTE ANNUNCIATOR ENCLOSURE SPECIFICATION

Accommodates: 1 RDCM 1 R-LAM
Material of Construction: 18 AWG (0.053 in. or 1.35 mm) rolled sheet steel
Enclosure Rating/Degree of Protection: NEMA 1
Color: Red (C21136 of Federal Standard 595)
Enclosure Dimensions (H x W x D): 7-1/2 x 12-3/4 x 2-3/4 (in.)
191 x 324 x 70 (mm)

REMOTE ANNUNCIATOR (R-LAM) SPECIFICATION

Number of Modules: Max 16 on Annunciator Bus; 15 if LAM integrated into Control Unit
Power Input: 150 mA maximum @ 24.0 VDC
Input Capacitance: 100 µF max.
PMU Trouble Relay Input: Short = normal; open = fault
Synch In/Out: 3.3 VDC Logic
Wiring Type: EIA/TIA-485, twisted unshielded pair, maximum capacitance 15 pF per ft.
Wiring Minimum Size: AWG 18
Maximum Wire Length: 4,000 ft. (1,219 m)

ARIES NETLink RETROFIT KIT (P/N 76-800400-001)

The retrofit kit consists of the following parts:

- Base Plate qty. 1
- Base Plate Bracket qty. 1
- Replacement Door qty. 1
- Retrofit Installation Hardware qty. 1
- PSU with wiring harness to PMU Board qty. 1
- PMU Installation Hardware Kit qty. 1
- MCB, complete with UI and mounting hardware qty. 1
- MCB Installation Hardware Kit qty. 1
- ARIES NETLink System Installation/Configuration Kit qty. 1

OPTIONAL ADD-ONS TO BOTTOM TIER OF LEGACY BACKBOX: (room for only one from list below)

- Card Cage Assembly with backplane, bracket, hardware and cables, P/N 76-800010-001 qty. 1
- Additional PSU/PMU Assembly with bracket and hardware, P/N 76-800030-003 qty. 1
- Standby Batteries one pair
### COMPATIBLE DEVICES

#### SmartOne SLC Devices

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<td>Photoelectric Detector</td>
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<tr>
<td>71-401001-000</td>
<td>Photoelectric Detector (retrofit only)</td>
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<tr>
<td>71-401004-000</td>
<td>Photoelectric Detector with Relay (retrofit only)</td>
</tr>
<tr>
<td>70-402001-100</td>
<td>Ionization Detector</td>
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<tr>
<td>70-401001-000</td>
<td>Ionization Detector (retrofit only)</td>
</tr>
<tr>
<td>70-401004-000</td>
<td>Ionization Detector with Relay (retrofit only)</td>
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<tr>
<td>70-404001-100</td>
<td>Heat Detector</td>
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<tr>
<td>70-400001-100</td>
<td>Flanged Detector Base</td>
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<tr>
<td>70-400001-101</td>
<td>Detector Base</td>
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<tr>
<td>70-400001-200</td>
<td>Detector-Base Adapter</td>
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<tr>
<td>70-403001-000</td>
<td>Detector Base (retrofit only)</td>
</tr>
<tr>
<td>70-403001-152</td>
<td>Duct Housing with Photoelectric Detector</td>
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<tr>
<td>70-403001-052</td>
<td>Duct Housing with Ionization Detector</td>
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<tr>
<td>70-403000-000</td>
<td>Duct Housing (retrofit only)</td>
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<tr>
<td>70-407008-001</td>
<td>Monitor Module (N/O)</td>
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<tr>
<td>70-407008-002</td>
<td>Monitor Module (N/C) (UL only)</td>
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<tr>
<td>70-407018-001</td>
<td>Monitor Module (N/O) (non-silicone)</td>
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<tr>
<td>70-407018-002</td>
<td>Monitor Module (N/C) (non-silicone; UL only)</td>
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<td>70-407004-001</td>
<td>Monitor Module (N/O) (retrofit only)</td>
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<tr>
<td>70-408014-001</td>
<td>Control Module (non-silicone)</td>
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<td>Control Module without Mtg. Plate (retrofit only)</td>
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<td>70-408002-000</td>
<td>Control Module with Mtg. Plate (retrofit only)</td>
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<tr>
<td>70-408003-000</td>
<td>Control Module with SS Mtg. Plate (retrofit only)</td>
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<tr>
<td>77-297103-000</td>
<td>PEGAsys Addressable Loop Module (Fits in ORION XT Detector)</td>
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<tr>
<td>73-100003-001</td>
<td>Addr. Alarmline Mod.(in NEMA-4 enclosure)</td>
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<tr>
<td>70-200200-001</td>
<td>Addr. Signal Module</td>
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<tr>
<td>70-200200-003</td>
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<td>70-200200-002</td>
<td>Addr. Signal Module (on 6SB Detector Base)</td>
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<tr>
<td>74-200012-002</td>
<td>Isolator Module (single-gang mount)</td>
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<tr>
<td>74-200012-004</td>
<td>Isolator Module (detector-base mount)</td>
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<tr>
<td>70-600000-001</td>
<td>Remote Releasing Module (standard mount)</td>
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<tr>
<td>70-600000-002</td>
<td>Remote Releasing Module (in-cabinet mount)</td>
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<tr>
<td>76-333002-001</td>
<td>APIC for AIR-Intelligence ASDs</td>
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<td>84-878752-010</td>
<td>Suppression Abort Station (requires a Model Al Addressable Monitor Module)</td>
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### Releasing Devices

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ORDERING INFORMATION (Continued)

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<td>76-800000-005</td>
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**ORDERING INFORMATION (Continued)**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>76-800000-006</td>
<td>ARIES NETLink Harness Enclosure- to- Enclosure</td>
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<tr>
<td>70-600000-100</td>
<td>Hand-Held Programmer</td>
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<td><strong>RETROFIT KIT (order P/N 76-800400-001)</strong></td>
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<tr>
<td>Qty.</td>
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<tr>
<td>76-800020-001</td>
<td>ARIES NETLink Main Control Unit (MCB) PCB with user interface, communication and power harnesses to PMU</td>
</tr>
<tr>
<td>76-800030-004</td>
<td>Power Management Unit Board</td>
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<tr>
<td>76-800030-001</td>
<td>Power Supply Unit with wiring harness to PMU</td>
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<tr>
<td></td>
<td>Base Plate</td>
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<tr>
<td></td>
<td>Base Plate Bracket</td>
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<tr>
<td></td>
<td>Replacement Door and Window Assembly</td>
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<tr>
<td></td>
<td>Installation Hardware</td>
</tr>
<tr>
<td></td>
<td>#6 nuts</td>
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<tr>
<td></td>
<td>#8 nuts</td>
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<tr>
<td></td>
<td>#10 nut</td>
</tr>
<tr>
<td></td>
<td>Self-threading screw</td>
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</table>

**Part Number Description**

- **24-Hour Service / 365 Days**
- **Custom Assembly & Packaging**
- **Life Safety, Fire Alarm & Mass Notification Systems**
- **Fire Sprinkler Systems**
- **Clean Agent Fire Suppression**
- **Low & High Pressure CO2**
- **Water Mist Systems**
- **Fire Extinguishers**
- **Kitchen Hood & Dry Chemical Systems**
- **Explosion Prevention & Suppression Systems**

Kidde is a registered trademark of Kidde-Fenwal, Inc.
ARIES NETLink is a trademark of Kidde-Fenwal, Inc.
Andrew James Blaszak
Is Licensed To Practice
Fire Protection Engineering
In The State of Nebraska
Until December 31, 2019
License Number E-16874

Nebraska Board of Engineers and Architects, Lenora A. Isom
Bid Clarification

Date: August 17, 2018
To Contractor: Associated Fire Protection
Response by: Andrew Blaszak 08/20/2018
Project: 911 Clean Agent Proposal
AES Project No.: 18088-135
Clarification No.: 1

Advanced Engineering Systems, Inc. has been requested by the Owner to have you clarify a few items on the bid you submitted for the 911 Clean Agent Project.

• Does your proposal include the maintenance perspective called out in the specifications? All testing is very important and tests will need to be in full compliance with the NFPA standard 2001. This includes testing with the building fire alarm. Any audible testing will first be approved by Sarpy County officials. **AFP included one semi-annual and one annual inspection for one year (two total) during the initial warranty period. A long-term maintenance contract will be provided for subsequent years in accordance with NFPA 72 and NFPA 2001.**

  Also, we will pretest the system and do final acceptance testing with the local AHJ and Sarpy County officials and/or their delegated representatives.

• Successful installation completion should be followed by training as per the specification. Does your bid include training and semi-annual and annual inspections? If so how many training sessions? **Training of personnel is included and limited to one training session. AFP included one semi-annual and one annual inspection for one year (two total) during the initial warranty period.**

• Does your bid include all wiring to be installed in metallic raceway and flush mounted as required? Are your installers all licensed to install electrical by the State of Nebraska? Permits for installation will be obtained as per Sarpy County or State of Nebraska as required. **All wiring will be installed in metallic raceway per NEC and per the specifications. Per Sheet FS1 General Note L., surface mount raceways will be utilized only when necessary. All final planned raceways will be discussed prior to installation.**

  AFP installers are licensed fire alarm installers in the State of Nebraska. All necessary electrical work outside their scope is to be subcontracted to a licensed electrical contractor [Electric Company of Omaha (ECO)].

• The Gamewell-FCI building fire alarm will be reprogrammed to accept all zones for initiation of clean agent. This will occur with both the automatic function, manual activation and the abort function as required by the specification. Is Associated Fire an authorized dealer/installer for Gamewell-FCI? **The Gamewell-FCI panel is not the releasing panel and is not listed to release any clean agent system, acting only as the building fire alarm system.**

  **Per NFPA 2001 – 4.3.1.1.3, the clean agent suppression system releasing control panel “shall be monitored by the building fire alarm system for alarm, supervisory, and trouble signals.” Additionally, transfer signals are included per the requirements of Spec 21 22 00 Section 2.2.**

  AFP has secured pricing from a local certified Gamewell-FCI distributor to program any necessary modules.
The speciation requires the complete removal of all dry system sprinklers, beginning with the dry valve and to include ALL sprinkler piping in all zones of clean agent protection. Are you able to perform these services in the off hours of the 911 Center and coordinate the demolition and any installation aspects is an absolute necessity with 911 Center management?  
Yes. However, the bid proposal does not include premium time for off hours work and was not specified in the bid package. Any work completed outside normal business hours (7am to 5pm | Mon-Fri) will be adjusted for premium time rates. All fire sprinkler work to be completed by LU 669 Fire Sprinkler Fitters employed by AFP.

AFP has figured for time and materials to protect 911 equipment. During the walkthrough, it was discussed that the operators could be moved to an alternate location during this portion of the work to avoid afterhours labor.

All duct work providing air to the protected area will receive smoke and fire dampers, they will actuate as required. Which subcontractor will be used for this work?

Prairie Mechanical Corporation

Do you have sealing of all room penetrations with fireproof products included in your bid? This sealing shall include providing weather stripping and mechanical action door sweeps to perimeter doors as required to pass room integrity testing as per NFPA standard 2001.

Yes.

What “extra” system components were included in your bid? If the Owner chooses to delete any of these will a credit be issued?

AFP has included only the extras required within the provided scope per Spec 21 22 00 Section 1.8 except as changed in Addendum 1 [removal of additional agent which includes container valves as they are required for storage of HFC-227ea (FM-200)].

Should the Owner choose to eliminate any extras, credits will be issued.

Did your bid include FM-200 agent calculations that were designed with a true 7.1% agent concentration?

Yes.

Each zone of initiation will have a pressure actuated discharge confirmation switch to confirm zone discharge. The building fire alarm system will be programmed to show room discharge has occurred.

Yes. Discharge by zone signal will be transferred to building fire alarm.

As per the specifications and the NFPA 2001 standard, flow verification test with nitrogen must be performed. Was this included in your bid? Is pressure testing each pipe run as per the NFPA 2001 standard also included in your bid?

Yes per NFPA 2001 Sections 7.4.14 and 7.4.15.

Are performing room integrity tests, as required, to confirm hold times included in your bid? Is a full report of this testing will be provided with the as built drawings and any other close out documents required included in your bid?

Yes.

All work shall be in accordance with the terms, stipulations, and conditions of the original contract.

<table>
<thead>
<tr>
<th>Issued By:</th>
<th>Date:</th>
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<tbody>
<tr>
<td>Matt Benes</td>
<td>8/17/18</td>
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