American Radiolabeled
Chemicals, Inc.

101 ARC Drive
Saint Louis, MO 63146 USA
Phone: 314-991-4545 or 800-331-6661
Fax: 314-991-4692 or 800-999-9925
Web: http://www.arc-inc.com
Email: arcinc@arc-inc.com

8 August 2011

U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4351

ATTN: Cassandra Frazier

LICENSE No: 24-21362-01

SUBJECT: Request for Amendment to Our License

Gentlemen:

American Radiolabeled Chemicals, Inc (ARC) requests amendment of our license to chow changes to the description of the facility, specifically the use of commercially available air samplers for the stack effluents. These samplers, description and specifications attached,. will be used tro replace the home built impinger system presently used to monitor the gaseous effluent pathway

ARC requests expedited processing of this request.

If you have any questions or require clarification on any of the attached information, you may contact Regis A Greenwood, CHP, our RSO, directly at 314-991-4545.

Sincerely

AMERICAN RADIOLABELLED CHEMICALS, INC

Surendra K Gupta, PhD
President
American Radiolabeled Chemicals

RECEIVED SEP 0 1 2011

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5% - Quoted del. 4-6wks

Tritium Collection System
Model MRB200H3

$2,700

NOTABLE FEATURES:

- Tritium in Water Vapor Collection System
- Automatic Flow Control
- Digital Flowmeter displaying flow, elapsed time and accumulated volume
- Large, bright LED Display
- Correction of flow rate and volume to a reference temperature and pressure (4 options)
- Tri-20ml bubbler system
- 110VAC; 50/60Hz; single phase
- Brushless motor

GENERAL DESCRIPTION:

The Model MRB200H3 Tritium collection system consists of a three 20 ml vial bubbler train for collection of tritium in water vapor. A diaphragm pump with an automatic flow control mechanism utilizing the F&J digital flowmeter system is provided. The pump is powered by a 12VDC brushless motor.

Typical flow range is 50 to 200 sccm (other flow range options are available).

Real-time data download is available through the RS232 port. An optional flash card data storage device is available.

The unit is designed for continuous indoor use. Please consult the product specifications for the design temperature range and the installation category.

Collection efficiency for total tritium is greater than 99% utilizing ethylene glycol.

REV: 23 September 2008

Paul

F&J SPECIALTY PRODUCTS, INC.
t: 352.680.1177 / f: 352.680.1454 / e: fandj@fjspecialty.com / www.fjspecialty.com

fandj

customer list

SPECIFICATIONS:

PUMP TYPE:	Diaphragm
MOTOR:	Brushless type; 12VDC PWM
MAXIMUM CAPACITY:	Typical 75 cc/min to 200 cc/min. control range Other flow ranges available upon request.
POWER REQUIREMENTS:	110 VAC; 50 Hz; 1 ampere; single phase
CIRCUIT BREAKER PROTECTION:	5 amperes
ELECTRICAL CORD:	All temperature, 3-wire, 16 gauge
DIMENSIONS:	15.5"L × 10"H × 11"W (39,4 cm L × 25,4 cm H × 28 cm W)
WEIGHT:	17.5 lbs. (8 kg)
INSTALLATION CATEGORY:	Pollution Degree 2

TRITIUM COLLECTION SYSTEM:

- Removable 20 ml scintillation vials; One three vial train
- Detection Limit: 1E-10 µCi/cc
- Efficiency: > 99% with ethylene glycol

AIR FLOW MEASUREMENT SYSTEM

- Air flow: ± 4.0% of full scale
- Temperature: ± 0.9°F (0.5°C) (Not displayed)
- Absolute Pressure: ± 0.6 inches Hg (15,24 mm Hg) (Not displayed)

ON-BOARD CALCULATIONS

- Flow calculation from differential pressure value corrected to a reference T and P
- Elapsed Time
- Cumulative Volume corrected to a reference T and P

OPERATING TEMPERATURE:	(0° - 40°C) (32°F - 104°F)
STORAGE TEMPERATURE:	(-10°C - 50°C) (14°F - 122°F)
OPERATING HUMIDITY:	0-95% RH non-condensing
COMMUNICATIONS INTERFACES:	RS-232 available for real-time data download of airflow data

OPTIONS:

- Flash Card Data Storage Device 232FCDSD
- Flash Card (2 GB) 372239
- PC Flash Card Reader SDDR-A99-A20

2x

F&J SPECIALTY PRODUCTS, INC.

PO Box 2888
Ocala, Florida 34478-2888
Tel: (352) 680-1177 • (352) 680-1178
Fax: (352) 680-1454
Email: fandj@fjspecialty.com Internet: www.fjspecialty.com

The Nucleus of Quality Air Monitoring Programs

Carbon 14 Collection System
Model MRB200C14

NOTABLE FEATURES:

- Inorganic CO_2 in Air Collection System
- Automatic Flow Control
- Digital Flowmeter displaying flow, elapsed time and accumulated volume
- Large, bright LED Display
- Correction of flow rate and volume to a reference temperature and pressure (4 options)
- Tri-20ml bubbler system
- 110VAC; 50/60Hz; single phase
- Brushless motor

GENERAL DESCRIPTION:

The Model MRB200C14 C-14 collection system consists of a three 20 ml vial bubbler train for collection of inorganic carbon species in air. A diaphragm pump with an automatic flow control mechanism utilizing the F&J digital flowmeter system is provided.

Typical flow range is 50 to 200 sccm

Real-time data download is available through the RS232 port. An optional flash card data storage device is available.

The unit is designed for ~~periodic~~ continuous w/ motor changer indoor use. Please consult the product specifications for the design temperature range and the installation category.

Collection efficiency for inorganic C-14 is greater than 99% utilizing ethanolamine.

Rev.: 31 March 2010
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MRB200C14 C-14 Collection System (110 – 120VAC)

SPECIFICATIONS:

PUMP TYPE:	Diaphragm
MOTOR:	Brushless type; 12VDC PWM
MAXIMUM CAPACITY:	Typical 75 cc/min to 200 cc/min. control range
POWER REQUIREMENTS:	110 VAC; 50 Hz; 1 ampere; single phase
CIRCUIT BREAKER PROTECTION:	5 amperes
ELECTRICAL CORD:	All temperature, 3-wire, 16 gauge
DIMENSIONS:	15.5"L×10"H×11"W (39,4 cm L × 25,4 cm H × 28 cm W)
WEIGHT:	17.5 lbs. (8 kg)
INSTALLATION CATEGORY:	Pollution Degree 2

C-14 COLLECTION SYSTEM:

- Removable 20 ml scintillation vials; One three vial train
- Detection Limit: 1E-10 µCi/cc
- Efficiency: > 99% with ethanolamine

AIR FLOW MEASUREMENT SYSTEM

- Air flow: ± 4% of full scale
- Temperature: ± 0.9°F (0.5°C) (Not displayed)
- Absolute Pressure: ± 0.6 inches Hg (15,24 mm Hg) (Not displayed)

ON-BOARD CALCULATIONS

- Flow calculation from differential pressure value corrected to a reference T and P
- Elapsed Time
- Cumulative Volume corrected to a reference T and P

OPERATING TEMPERATURE:	(0°-40°C)	(32°F-104°F)
STORAGE TEMPERATURE:	(-10°C-50°C)	(14°F-122°F)
OPERATING HUMIDITY:	0-95% RH non-condensing	
COMMUNICATIONS INTERFACES:	RS-232 available for real-time data download of airflow data	

OPTIONS:

- Flash Card Data Storage Device 232FCDSD
- Flash Card (1 GB) 372239
- PC Flash Card Reader SDDR-199-A20

Can do Calibration verification mini calibrator MC-300CC #1210.00

Rev.: 31 March 2010
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AMERICAN RADIOLABELED CHEMICALS
101 ARC DRIVE

ST. LOUIS, MO 63146
UNITED STATES US

SHIP DATE: 31AUG11
ACTWGT: 0.1 LB MAN
CAD: 0747982/CAFE2500

BILL SENDER

TO ATTN: CASSANDRA FRAZIER
U.S. NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE RD, SUITE 210
LISLE IL 60532
(314) 991-4545
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