American Radiolabeled
Chemicals, Inc.

101 ARC Drive
Saint Louis, MO 63146 USA
Phone: 314-991-4545 or 800-331-6661
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31 December 2013

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

LICENSE No: 24-21362-01

ATTN: Kevin Null

SUBJECT: Reply to Conversation Record

Gentlemen:

American Radiolabeled Chemicals, Inc (ARC) is pleased to Re-transmit the following Replies to the Conversation Record dated 11/26/13.

Attached you will find the re-transmission of the two e-mails sent on 10 December 2013.

If you have any questions or require clarification on any of the information stated above, you may contact our RSO at 314-991-4545.

Sincerely

AMERICAN RADIOLABELED CHEMICALS, INC

Surendra K Gupta, PhD
President.

Regis Greenwood, CHP

From: Regis Greenwood, CHP [regisgreenwood@arc-inc.com]
Sent: Tuesday, December 10, 2013 10:43 AM
To: 'Null, Kevin'
Subject: Reply To Conversation Record
Attachments: CONVrecARCbuilding300stackVELOCITYmsrmt112013.doc

Reference : Conversation Record dated 11/26/13

Kevin,

Point One of the Conversation Record.

ARC understands that the requested changes to SOPs 26 and 41 have been disallowed. Therefore we are withdrawing our request for amendment concerning these SOPs.

ARC has completed a total inventory of all SCO on site and has completed planning to either ship as hot waste; decon for further use; or decon for unrestricted disposal.

ARC is testing the equipment installed in the decon facility and at the completion of testing will submit an amendment request to allow the use of this facility. This will greatly enhance the ability to decon SCO.

Point Two of the Conversation Record.

ARC agrees with the values described in the Conversation Record and agrees to submit a revision to the amendment request, specifically items 3.2 and
4.1. ARC commits to submit plans for remediation for NRC review and approval prior to conducting remediation activities. This revion will be submitted under separate cover.

Point Three of the Conversation Record

ARC agrees that the requested changes are no longer valid, and withdraws the request

Point Four of the Conversation Record

The reply to this question was sent earlier today. One final addition, The three nozzles previously mentioned are in reality one nozzle
with a cross section of 1.74 sq ft.

Regis A Greenwood, CHP, FHPS
Director, Regulatory Affairs
Radiation Safety Officer
regisgreenwood@arc-inc.com
314-991-4545

Regis Greenwood, CHP

From: Regis Greenwood, CHP [regisgreenwood@arc-inc.com]
Sent: Tuesday, December 10, 2013 9:10 AM
To: 'Null, Kevin'
Subject: FW: Internals of VK-CD-24

Kevin,

I am forwarding this to you separately, the rest of the reply to the conversation record will be sent this afternoon.

With these numbers , 1.74 sq ft for the total nozzle area, you get a nozzle exit velocity of 6896 linear feet per minute. And an effective radius of
0.7444 ft (0.227 meters).

The whole system works like a giant air ejector. Looks like Bernoulli was right again.

RG

Regis A Greenwood, CHP, FHPS
Director, Regulatory Affairs
Radiation Safety Officer
regisgreenwood@arc-inc.com
314-991-4545

From: John Waites [mailto:john@waitescoinc.com]
Sent: Tuesday, December 03, 2013 8:00 AM
To: 'Regis Greenwood, CHP'
Subject: FW: Internals of VK-CD-24

Regis:
The below for your use.
Thank you,
John Waites

Our records show the following fan selection, as you know.

JOHN WAITES VEKTOR - Mark 1

Model: Vektor-CD-24-1-III-HV

Model | Selection | Performance Charts | Configuration | Motors | Accessories | Drawings | SDRs / Notes | AMCA | Model Description

Design Conditions | Performance

System Quantity: 1
Tag: Mark 1
Fan Qty: 1
Fan Tag: Fan 1
Volume (CFM): 12,000
External SP (in. wg): 5
Air Stream Temp. (F): 70
Wind Speed (MPH): 10.0
Elevation (ft): 400
Drive L
Moto
System Requi

Model	Relative Cost	Total SP (in. wg)	Nozzle OV (ft/min)	Windband Area (ft2)	Fan Speed (RPM)	Max. Class Speed (RPM)	Operating Power (hp)	Motor Size (hp)	WB Exit Volume (CFM)	Dilution Ratio (%)	Effective Plume Height (ft)
Vektor-CD-24-HV	1.00	5	6,897	5.55	2259	2782	22.01	25	21,360	178	44.9

The diameter of the exit of the windband is 32.10".
Using the above selection of 21,360 CFM with this diameter, I get a velocity of 3,848.65 FT/Min.

The outlet area of the nozzle (located inside the windband at the lower flair) is 1.74 FT^2

Hope this helps,

Michael Schmidt
Application Engineering Specialist
Greenheck Fan Corporation
PH 715.355.3137
Cell: 715-432-6579
Michael.schmidt@greenheck.com

American Radiolabeled Chemicals, Inc.

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SAINT LOUIS MO 630
31 DEC 2013 PM 10 L

PLEASE EVALUATE
FOR ADDITION
INTO ADAMS

U.S. NUCLEAR REGULATRORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4351
ATTN: KEVIN NULL

60532435260