

Torres, RobertoJ

From: Tebo, David <David.Tebo@TeamInc.com>
Sent: Friday, September 04, 2015 5:45 PM
To: Torres, RobertoJ
Cc: Banfield, Earl
Subject: [External_Sender] Reponse to Request for Additional Information & Exemption Request
Attachments: Team-NRC Lic renewal App - Addt'l Info Response.pdf; Team-NRC- Exemption Request for Use of Instadose.pdf

Mr. Torres,

Attached please find Team Industrial Services' response to your request for additional information regarding our application for license renewal. Additionally attached is an Application for Exemption regarding the use of Instadose.

Please contact me should you need any additional information/clarification or have any questions.

Sincerely,

David P. Tebo

Corporate Radiation Safety Officer
TEAM Industrial Services, Inc.
Office: 219-310-8560
Mobile: 219-229-2909
Fax: 708-367-9949
David.Tebo@TeamInc.com

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Take the Customer Satisfaction Survey online @
[Internal \(Corporate\) Survey](#)

"Safety First In Everything We Do"

zero today

RECEIVED
SEP - 8 2015

DNMS

PUBLIC

- Immediate Release
- Normal Release

NON-PUBLIC

- A.3 Sensitive-Security Related
- A.7 Sensitive Internal
- Other: _____

Reviewer: RITZ Date: 9-8-2015

TEAM Industrial Services, Inc.

578 N. Indiana Ave.
Crown Point, IN 46307
Phone: 219-310-8560

September 4, 2015

U.S. Nuclear Regulatory Commission
Region IV
1600 E, Lamar Blvd
Arlington, Texas 76011-4511

PUBLIC

- Immediate Release
- Normal Release

NON-PUBLIC

- A.3 Sensitive-Security Related
- A.7 Sensitive Internal
- Other: _____

Reviewer: RIT Date: 9-8-2015

Attn: Roberto J. Torres
Radioactive Materials Licensing

Re: Application for Exemption
USNRC RAM License No. 42-32219-01

RECEIVED
SEP - 8 2015

Dear Mr. Torres:

DNMS

Team Industrial Services, Inc., NRC License No. 42-32219-01, hereby requests exemption from the USNRC regulations in accordance with 10 CFR 20.2301 and 10 CFR 34.111, Applications for Exemptions, to allow for use of the Instadose personnel monitoring badge. The specifics of our request are listed below:

A. We request exemption from the following specific regulations:

- 1) 10 CFR 20.1003 (definition of dosimetry processor);
- 2) 10 CFR 20.1501(d)(1); and,
- 3) 10 CFR 34.47(a).

The basis for the exemption request is to allow Team Industrial Services, Inc. (the licensee) to utilize the Instadose monitoring badge as the personnel dosimeter of choice for monitoring the radiation exposure to employees during industrial radiographic operations.

The Instadose monitoring badge and process, in our opinion, already conforms to the provisions of and the intent of the regulation as a personnel monitoring dosimeter processed by a NVLAP accredited processor. The Instadose monitoring badge is supplied by Mirion Technologies (Quantum Products) who maintains the role and function of the processor. Mirion is a NVLAP accredited processor holding current NVLAP accreditation (Lab Code 100555-0). The Instadose badge is approved under this NVLAP accreditation for whole body dosimetry. The badge satisfies all required personnel monitoring performance criteria and offers many additional safety related benefits, thereby providing accurate measurement of occupational radiation exposure, reporting those exposures and incorporating additional enhancements allowing improved management of those occupational radiation exposures. Attached are the current certificates acknowledging the accreditation for your reference. Please note that in no manner is Team Industrial Services, Inc. acting as or portraying itself as the

processor for this badge. Team Industrial Services, Inc. is only the user (wearer) of the badge.

We understand there may be some misconception on the part of NRC regarding use of Instadose relating to the manner in which it conforms to the current regulations. Therefore, we provide the following description/clarification of the badge and the process by which it is used.

The Instadose dosimeter is based on proprietary direct ion storage technology. This breakthrough technology provides radiation workers with a precise measurement of radiation dose and includes accurate long-term exposure tracking. A built-in memory chip stores each user's identity via an embedded unique serial code that is assigned to the user.

Before use, each device must be registered online. During the registration process, the driver and client are installed on the user's computer and the device is initialized for use. Unlike other types of personnel monitoring badges, the Instadose badge itself (hardware) is not physically exchanged with the processor. Each time the badge is read, the user logs into the system using a unique user name and password and plugs the USB enabled device into the USB port on the computer and hits (clicks on) "Read Device". The data contained on the badge (radiation exposure data) is then transmitted to (exchanged with) the processor without alteration, modification or other processing by the user for evaluation. The accumulated dose stored on the device processes through a proprietary algorithm. This fully automated transfer of data minimizes the chance of human error and misidentification. The processor (Mirion Technologies) then evaluates the data and an immediate report is provided to the user (monitored individual and Team Industrial Services).

We therefore consider the Instadose monitoring badge as meeting the requirements of 10 CFR Part 20 and 10 CFR Part 34 as follows:

- 1) 10 CFR 20.1003 – Mirion Technologies is a NVLAP accredited organization that, through their proprietary system, processes and evaluates each individual Instadose badge to determine the radiation dose delivered to the badge. As such, Mirion Technologies meets the definition of a dosimetry processor.
- 2) 10 CFR 20.1501(d)(1) – The Instadose badge is processed by Mirion Technologies, which holds a current NVLAP accreditation, and the Instadose badge is approved in this accreditation.
- 3) 10 CFR 34.47(a) – Team Industrial Services does not allow any individual to act as a radiographer or radiographer's assistant unless, at all times during radiographic operations, each individual wears, on the trunk of the body, a direct reading dosimeter, an alarming ratemeter, and a personnel dosimeter (Instadose) that is processed and evaluated by an accredited NVLAP processor (Mirion Technologies).

Additionally, use of the Instadose badge also meets other associated requirements of the regulations as follows:

- 1) 10 CFR 34.47(a)(2) – Each Instadose badge is assigned to and worn by only one individual.

- 2) 10 CFR 34.47(a)(3) – Although the Instadose badge itself (hardware) is not physically returned to the processor, the data is transmitted to the processor (processed) at periods not to exceed one month or as otherwise permitted by license or regulation.
- 3) 10 CFR 34.47(a)(4) – The Instadose badge is processed immediately each time the badge is “read”, and an immediate report is provided to the user. This far exceeds the requirement of “as soon as possible”.

B. Use of the Instadose provides the user (Team Industrial Services) with the following benefits that are equivalent to or exceed the health and safety measures provided by other forms of personnel monitoring devices.

- 1) The minimum reportable dose for Instadose is 3 mrem, with a useful dose range of 1 mrem to 500 rem, and a lower limit of detection of 1 mrem. This data is comparable to that of other types of personnel dosimeters available.
- 2) The range of photon energy response is 5 keV to 6 MeV which is within the range expected for the types of radiation (x-ray and gamma) utilized by the licensee and again is comparable to other types of dosimeters.
- 3) Each individual user (wearer) can upload the data from their badge as often as they wish (unlimited read capability). This allows each user to view their accumulated exposure at multiple times during the monitoring period, each time they log into the system, allowing each user to more accurately and efficiently monitor their monthly and accumulated exposure.

Team has already seen the benefits of each user being able to view their exposure each time the badge is read as total overall exposures have reduced and fewer established ALARA investigative exposure levels have been exceeded. We feel this is due to the employees being more cognizant of their exposure since they are able to view their exposure levels each time they log into the system.

- 4) During emergency situations, exposures can be determined immediately by uploading the data (reading the badge), sometimes directly at the site if a computer is available. This eliminates the need to suspend operations, send the badge for emergency processing, and wait for the report in order to determine the extent of exposure. Using Instadose, the exposure is determined as soon as the badge is read and can potentially result in less lost time on the jobsite and wearer anxiety.
- 5) Since badges do not need to be collected and physically returned to the processor, time and cost in maintaining the dosimeter badge program are reduced. This allows the RSO more time to focus on other elements of the program.

C. Alternative methods of complying with the regulation and their feasibility include the following:

- 1) In our opinion the Instadose badge meets all of the required performance criteria with the addition of several radiation exposure management benefits. As an alternative method of compliance we have considered removing the badge and reverting to the former personnel dosimeter previously used. However, Team

Industrial Services has already transitioned all of its locations to use of the Instadose badge as the personnel dosimeter of choice. This was based on information provided by the supplier that the badge was NVLAP approved for use and the acceptance of our procedures for use of Instadose by USNRC (ref: amendment 46 to license 42-32219-01) and numerous Agreement State agencies. The option of reverting back to another form of personnel dosimeter would be costly to the licensee and time consuming.

- 2) Another reason why reverting to the previously used dosimeter would not be feasible is the level of safety provided by the Instadose badge and the benefits of its use exceeds those of other types of personnel dosimeters. The use of the badge has already proven to reduce overall exposure to employees by the ability of each employee to view their dose each time they log into the system. Reverting to another type of personnel dosimeter would include a decreased level of safety to the employees as dose values are not viewed until the exposure report is received following processing. This can sometimes be as much as 15-20 days following the end of the month. Employees are more cognizant of their exposure utilizing Instadose since they can view their dose every time they log into the system and can upload the reading multiple times during the month. This results in an increased ability to maintain doses ALARA.
- 3) Currently we are unaware of a personnel dosimeter that is capable of providing the individual wearers with the information they receive from using Instadose. The convenience of being able to view exposure levels at any time during the monitoring period is an elevated safety feature not available with other dosimeters we've researched.
- 4) Lastly, the convenience of not having to change out badges each month has resulted in badges being processed in a timelier manner. Instead of having to determine how to get badges to/from employees that are working away from the office, readings can be uploaded from anywhere provided a computer (laptop, tablet, etc.) is available with the Instadose driver installed. Other types of personnel dosimeters have to be exchanged each month, creating additional time required of the RSO and the expense of shipping the badges back to the processor which is not necessary when utilizing Instadose.

In summary, we respectfully request this exemption to the regulations in an effort to receive NRC's approval for the use of the badge as the personnel dosimeter of choice. Team Industrial Services, Inc. interpretation of the regulation, in conjunction with our research on the badge and the supplier, indicates the Instadose badge meets the essential requirements of a personnel monitoring badge as referenced in the regulations. Mirion Technologies, as a NVLAP accredited processor, also meets the definition of a dosimetry processor. We feel the use of the Instadose badge is not detrimental to the health and safety of our employees and actually provides an increased level of safety that promotes ALARA practices and reduces overall exposure.

If you should require any additional information or should you have any questions regarding this application for exemption, please contact me at 219/310-8560 or 219/229-2909.

Sincerely,

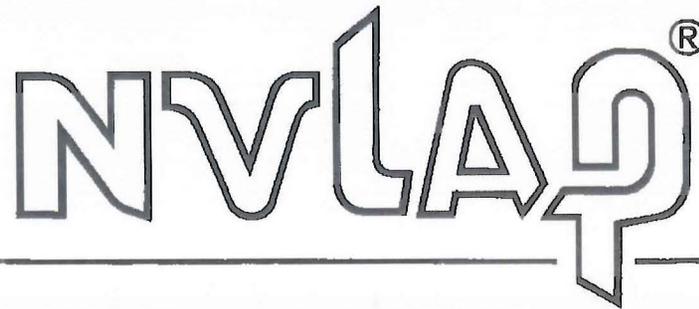


David P. Tebo
Corporate Radiation Safety Officer
TEAM Industrial Services

Cc: Earl Banfield – Corporate RSM
File

DPT/: Team-NRC Exemption Req. for Use of Instadose 090415

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 100555-0

Mirion Technologies (GDS), Inc
Irvine, CA

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:*

Ionizing Radiation Dosimetry

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

2015-06-11 through 2016-06-30

Effective Dates



For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

Mirion Technologies (GDS), Inc
2652 McGaw Avenue
Irvine, CA 92614
Mr. Kip Bennett

Phone: 949-419-1000 x2371 Fax: 949-296-1150

E-Mail: kbennett@mirion.com

URL: http://www.mirion.com/index.php?p=dosimetry_division

IONIZING RADIATION DOSIMETRY

NVLAP LAB CODE 100555-0

This facility has been evaluated and deemed competent to process the radiation dosimeters listed below through employing the TLD automatic readers: Panasonic model UD710A, UD7900, and Harshaw models 5500 and 8800; MacBeth TD932 densitometer, a custom automatic developer and densitometer for film processing, and a TASL Image track etch system.

WHOLE BODY

This facility is accredited to process the following dosimeters by demonstration of compliance with ANSI HPS N13.11 through testing.

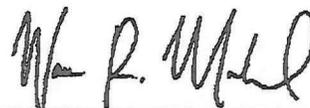
100555-G, RemTrak Wallet Card (Badge Type 21/22) - TLD-100-WC for ANSI N13.11-2009 categories IB and IIB.

100555-H, TLD760 (Badge Type 16) - TLD-760-PB for ANSI N13.11-2009 categories IA, IIA, IIIA, IVAA and VCA.

100555-N, TLD760-CR39 (Badge Type 15) - TLD-760-PB-CR39 for ANSI N13.11-2009 categories IA, IIA, IIIA, IVAA and ANSI N13.11-2001 category VIA.

100555-Q, Film (Badge Type 01) - Film-FB for ANSI N13.11-2009 categories IB, IC, IIA, IIIB, and IVAB.

100555-W, Genesis 100 (Badge Type 14) - TLD-100-DB for ANSI N13.11-2009 categories IB, IC, IIA, IIIB, and IVAB.



For the National Voluntary Laboratory Accreditation Program

IONIZING RADIATION DOSIMETRY

NVLAP LAB CODE 100555-0

100555-X, Genesis-CR39 (Badge Type 15) - TLD-760-DB-CR39 for ANSI N13.11-2009 categories IA, IIA, IIIA, IVAA and ANSI N13.11-2001 category VIA.

100555-Y, Genesis Ultra-CR39 (Badge Type 35) - TLD-MCP-DB-CR39 for ANSI N13.11-2009 categories IA, IIA, IIIA, IVAA and ANSI N13.11-2001 category VIA.

100555-Z, Genesis (Badge Type 16) - TLD-760-DB for ANSI N13.11-2009 categories IA, IIA, IIIA, IVAA and VCA.

100555-A1, Genesis Ultra (Badge Type 36) - TLD-MCP-DB for ANSI N13.11-2009 categories IA, IIA, IIIA, IVAA and VCA.

100555-A3, Panasonic TLD (Badge Type 03) - TLD-Pan-HB for ANSI N13.11-2009 categories IA, IIA, IIIA, IVAA and VCA.

100555-A5, Instadose ID-1.5 - ID-1.5.1 for ANSI N13.11-2009 categories IA, IIA, and IIC.

100555-A7, Instadose ID-1.6 - ID-1.6 for ANSI N13.11-2009 categories IA, IIA, and IIC.

100555-B3, Instadose ID-2.1 - Detector type: DIS for ANSI N13.11-2009 categories IA, IIA, IIIB, and IVAB.

100555-B4, Instadose ID-1.7 - ID-1.7 for ANSI N13.11-2009 categories IA, IIA, and IIC.

100555-B6, APex (Badge Type 30) – OSL-BeO₂-Bx for ANSI N13.11-2009 categories IA, IIA, IIC, IIIB, and IVAB.

EXTREMITY

This facility is accredited to process the following extremity dosimeters by demonstration of compliance with ANSI N13.32 through testing.

100555-L, MeasuRing (Badge Type 19) - TLD-100-Mx for ANSI N13.32-2008 categories IA, IIA, IIIA, and IIID.

100555-S, UltraRing (Badge Type 18) - TLD-100-Hx for ANSI N13.32-2008 categories IA, IIA, IIIA, and IIID.

100555-A2, FlexRing (Badge Type 18) - TLD-100-RF for ANSI N13.32-2008 categories IB and IIB.

IONIZING RADIATION DOSIMETRY

NVLAP LAB CODE 100555-0

100555-A6, MeasurRing (Badge Type 19) - TLD-107-Mx for ANSI N13.32-2008 categories IA, IIA, IIIA, and IIID.

100555-A8, EXT (Badge Type 16) TLD-760-PW for ANSI N13.32-2008 categories IB, IC, IIA, IIIA, and IVAA.

100555-A9, Genesis-EXT (Badge Type 16) TLD-760-DW for ANSI N13.32-2008 categories IB, IC, IIA, IIIA, and IVAA.

100555-B1, Genesis Ultra-EXT (Badge Type 36) TLD-MCP-DW for ANSI 13.32-2008 categories IB, IC, IIA, IIIA, and IVAA.



DATE

09/08/2015

NAME AND ADDRESS OF APPLICANT AND/OR LICENSEE David P. Tebo, Corporate Radiation Safety Officer Team Industrial Services, Inc. 200 Hermann Drive Alvin, Texas 77511	LICENSE NUMBER 42-32219-01
	MAIL CONTROL NUMBER 588699
	LICENSING AND/OR TECHNICAL REVIEWER CH

This is to acknowledge the receipt of your:

LETTER and/or APPLICATION DATED: 09/04/2015

The initial processing, which included an administrative review, has been performed.

AMENDMENT TERMINATION NEW LICENSE RENEWAL

- There were no administrative omissions identified during our initial review.
- This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.
- Your application for a new NRC license did not include your taxpayer identification number. Please fill out NRC Form 531, located at the following link:

<http://www.nrc.gov/reading-rm/doc-collections/forms/nrc531.pdf>

Send the completed NRC Form 531, by facsimile, to the following number: (301) 415-5387

A copy of your action has been emailed to our License Fee and Accounts Receivable Branch, in our Headquarters office in Rockville, MD. You will be contacted separately if there is a fee issue involved.

Your application has been assigned the above listed **MAIL CONTROL NUMBER**. When calling to inquire about this action, please refer to this control number. Your application has been forwarded to a technical reviewer. Please note that the technical review, which is normally completed within 180 days for a renewal application (90 days for all other requests), may identify additional omissions or require additional information. If you have any questions concerning the processing of your application, our contact information is listed below:

Region IV
U. S. Nuclear Regulatory Commission
DNMS/NMSB - B
1600 E. Lamar Boulevard
Arlington, TX 76011-4511
(817) 200-1103 or (817) 200-1140

9/8

BETWEEN:

Accounts Receivable/Payable
and
Regional Licensing Branches

[FOR ARPB USE]
INFORMATION FROM WBL

Program Code: 03320
Status Code: Pending Amendment
Fee Category: 30 3P
Exp. Date:
Fee Comments:
Decom Fin Assur Req: N

License Fee Worksheet - License Fee Transmittal

A. REGION

1. APPLICATION ATTACHED

Applicant/Licensee: TEAM INDUSTRIAL SERVICES, INC.
Received Date: 09/08/2015
Docket Number: 3035252
Mail Control Number: 588699
License Number: 42-32219-01
Action Type: Amendment

2. FEE ATTACHED

Amount: _____

Check No.: _____

3. COMMENTS

Signed: _____

Date: _____

Carol R. Hie
9/8/15

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered / /)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:

Amendment: _____

Renewal: _____

License: _____

3. OTHER _____

Signed: _____

Date: _____