

TEAM[®] Industrial Services, Inc.

3640 W. 179th Street
Hammond, IN 46323
Phone: 219-838-0505 Fax: 219-838-8558

RECEIVED

DEC 28 2011

DNMS

December 28, 2011

U.S. Nuclear Regulatory Commission
Region IV
612 E. Lamar Blvd, Suite 400
Arlington, Texas 76011-4125

Attention: Roberto J. Torres

Subject: Amendment Request – RAD-EYE G
NRC License No. 42-32219-01

Dear Mr. Torres,

TEAM Industrial Services would like to reopen our request, submitted February 14, 2011, for amendment to our documents incorporated by reference under NRC radioactive materials license, 42-32219-01, to include authorization to use of the Sentinal Rad-Eye G instrument. In response to your letter dated May 11, 2011, Team provides the following additional information in order to clarify our intention and proposed use of the instrument. Attached for reference are copies of our original request and NRC's response.

1. Team requests NRC's approval and authorization to use the SENTINAL Rad-Eye G portable dose and dose rate meter. Team is requesting authorization to use this instrument as an electronic dosimeter and alarming rate meter to replace the 0-200 mR pocket dosimeters and rate alarms (i.e. RA-500) currently in use. Although the instrument also incorporates a survey meter modality, Team understands that using the instrument in all three modalities simultaneously would most likely indicate personal exposure higher than actually received to the whole body. Additionally, using the instrument in all three modalities would mean having to remove the device from the trunk of the body in order to perform surveys, thereby no longer meeting the regulations for dosimetry to be worn at all times on the trunk of the body. Team understands this requirement and is therefore requesting authorization to use the instrument solely as a direct reading dosimeter and alarming rate meter (ARM) for purposes of monitoring personnel exposure. Team personnel will continue to use a standard survey meter (NDS Products Model ND2000 or similar) to perform required surveys. All Team employees would also still be required to possess and wear a personal monitoring badge (film, TLD, OSLD or other) as this unit would not be a replacement for these devices for permanent dose monitoring.

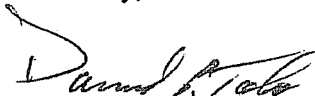
Team would like to note that, although we will routinely use the Rad-Eye G during standard radiographic operations in only the two modalities, as an electronic dosimeter and ARM, the survey meter function could be a valuable asset as an emergency back-up or for performing surveys during an emergency situation if/when no other instruments are available.

2. In addressing the second item concerning the means to change the preset alarm function, the Rad-Eye G can be programmed to prevent changing the alarm thresholds by the user. Also changing alarm thresholds of the alarming rate meter or electronic dosimeter does require a special means (infrared reader/docking station and software program) to change the alarm thresholds. The Rad-Eye G includes two separate alarm thresholds for dose rate and two thresholds for dose. The facility RSO or program facilitator, using the infrared reader/docking station in conjunction with the software program can set (change) the thresholds of the alarm rate meter and electronic dosimeter as well as block (hide) the function from access by the individual user. Optionally, the thresholds can be factory set by Sentinel prior to shipment. Team would require the alarm rate meter high threshold to be set at the 500 millirem limit required by the regulation and have the function programmed to prevent changing by the individual user. We may also set a second lower threshold to alert the user of other potentially high dose rates (i.e. 100 millirem).
3. In addressing the third item concerning calibration frequencies, Team understands there are different calibration frequencies required for survey meters, alarming rate meters and electronic dosimeters, and the difficulty in maintaining these if all three modalities were used simultaneously. Since we intend to use the instruments in the two modalities associated with personal dosimetry, alarming rate meter and electronic dosimeter, the calibration frequency for the instrument would be annually as required by the regulations.

In summary, Team would like to move toward utilizing the modern technology available with such devices since this and other similar devices are now becoming more available to the radiographic community. We feel the Rad-Eye G meets the requirements of the regulations for personal monitoring as an electronic dosimeter and alarming rate meter as well as providing an acceptable unit for use in performing surveys. However we also understand, as does Sentinel, that utilizing the instrument in all three modalities simultaneously presents concerns in meeting the regulations. Sentinel recommends using the device either as an electronic dosimeter and alarming rate meter, or as a survey instrument. As such, we are requesting authorization from NRC to utilize the instruments functions as an alarming rate meter and electronic dosimeter to replace the standard pocket dosimeter and alarming rate meters currently in use. We will continue to utilize a standard survey instrument for performing surveys and will only use the survey meter function of the Rad-Eye G under emergency conditions if/when no other means are available.

If you should require any additional information or should you have any questions regarding this request, please contact me at 219/838-0505 or 219/229-2909.

Sincerely,



David P. Tebo
Corporate Radiation Safety Officer
TEAM Industrial Services

Cc: Earl Banfield – Corporate RSM
File

TEAM[®] Industrial Services, Inc.

3640 W. 179th Street
Hammond, IN 46323
Phone: 219-838-0505 Fax: 219-838-8558

February 14, 2011

U.S. Nuclear Regulatory Commission
Region IV
612 E. Lamar Blvd, Suite 400
Arlington, Texas 76011-4125

Subject: Amendment Request
NRC License No. 42-32219-01

Attention: Roberto J. Torres

Dear Mr. Torres,

TEAM Industrial Services would like to request amendment to our documents incorporated by reference under NRC radioactive materials license, 42-32219-01, to include authorization to use additional instruments as follows:

- 1) Team requests NRC's approval and authorization to use the SENTINAL Rad-Eye G portable dose and dose rate meter. This unit provides a very accurate recording of dose, an alarming/vibrating rate alarm and radiation survey ability. Team is requesting authorization to use this instrument as an electronic dosimeter and alarming rate meter to replace the 0-200 mR pocket dosimeters and rate alarms (i.e. RA-500) currently in use. We would also like NRC's position on the use of the instrument for its survey meter capabilities as well. Although we most likely would use the instrument for its dose and alarming rate meter functions and would continue to use a standard survey meter for surveys of the exposure device, the survey meter capabilities would be beneficial as a back-up and for individuals to monitor the restricted area during exposures since the unit essentially places a survey meter on each monitored employee. All Team employees would still be required to possess and wear a personal monitoring badge (film, TLD, OSLD) as this unit would not be a replacement for these devices for permanent dose monitoring.

Team would like to move toward utilizing the modern technology available with such devices since this and other similar devices are now becoming more available to the radiographic community. We feel the Rad-Eye G meets the requirements of the regulations for personal monitoring as an electronic dosimeter and alarming rate meter as well as providing an acceptable unit for use in performing surveys. It is also our opinion that the Rad-Eye G is more durable and overall a better unit than other similar units on the market.

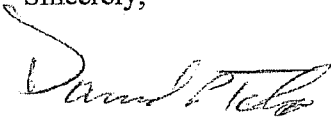
A copy of the operating manual for the Rad-Eye G is attached for your review.

5 7 6 6 1 4

NRC License No. 42-32219-01 - Amendment Request
February 14, 2011
Page 2

If you should require any additional information or should you have any questions regarding this request, please contact me at 219/838-0505 or 219/229-2909.

Sincerely,

A handwritten signature in black ink, appearing to read "David P. Tebo". The signature is fluid and cursive, with a large initial "D" and "T".

David P. Tebo
Corporate Radiation Safety Officer
TEAM Industrial Services

Cc: Earl Banfield – Corporate RSM
File



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BOULEVARD, SUITE 400
ARLINGTON, TEXAS 76011-4125

May 11, 2011

Team Industrial Services, Inc.
ATTN: David P. Tebo
Corporate Radiation Safety Officer
200 Hermann Drive
Alvin, Texas 77511

SUBJECT: SENTINEL RAD-EYE G

The U.S. Nuclear Regulatory Commission (NRC) has performed a preliminary review of your letter and enclosures dated February 14, 2011, in which Team Industrial Services requested an amendment to the NRC license to authorize a Sentinel Rad-Eye G instrument for use simultaneously as an electronic dosimeter, alarm ratemeter, and survey meter when conducting industrial radiography operations. The NRC staff evaluated the information provided for the Sentinel Rad-Eye G instrument; compared the requirement of 10 CFR Part 34, "Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations", for the proposed use; and reviewed the guidance provided in NUREG 1556, Volume 2, "Consolidated Guidance About Material Licenses: Program Specific Guidance About Industrial Radiography Licenses." Our review has determined that there is not sufficient information for the NRC to authorize the Sentinel Rad-Eye G instrument for multiple modalities. Because the amendment request is incomplete and does not provide sufficient information for the NRC to make an assessment, your amendment request dated February 14, 2011, has been voided without prejudice and will be re-instated when sufficient information is received that will allow the NRC staff to make an evaluation. Should Team Industrial Services elect to re-submit its amendment request, it will need to specifically address the following:

1. 10 CFR 34.47(a) requires a radiographer or a radiographer's assistant to wear at all times, on the trunk of the body, a direct reading dosimeter, an operating alarm ratemeter, and a personnel dosimeter, that is processed and evaluated by an accredited National Volunteer Laboratory Accreditation Program (NVLAP) processor.

Demonstrate how a radiographer or radiographer's assistant would use the Sentinel Rad-Eye G instrument in all three modalities simultaneously when the regulations require that personnel monitoring be worn at all times on the trunk of the body. It is not clear how the radiographer or radiographer's assistant would satisfy this requirement if the individual takes the instrument off the trunk of the body to perform a radiation survey (in the survey meter modality), while at the same time using the instrument as an electronic dosimeter. It appears that the electronic personal dosimeter part of the instrument would no longer be performing its regulatory required function when radiation survey measurements are being made when using the survey instrument modality of the Sentinel Rad-Eye G instrument.

2. 10 CFR 34.47(g)(3), requires each alarm ratemeter to have special means to change the preset alarm function. This feature is necessary to prevent the change of the preset 500 millirem limit by the user of the instrument while working in the field.

Demonstrate how the Sentinel Rad-Eye G instrument, in the alarm ratemeter modality, has a special means to impede the user from changing the 500 millirem limit. It appears from the manufacturer's information that the alarm function can be changed without difficulty. This feature by itself would prevent the Sentinel Rad-Eye G instrument from being used as an alarming ratemeter.

3. 10 CFR Part 34 specifies different calibration frequencies for electronic personal dosimeter, alarm ratemeter, and survey meter. For example, electronic personal dosimeters and alarm ratemeters need to be calibrated at periods not to exceed 12 months as required by 10 CFR 34.47(c) and 10 CFR 34.47(g)(4), respectively; and survey meters need to be calibrated at intervals not to exceed six months as required by 10 CFR 34.25(b)(1).

Demonstrate how the Sentinel Rad-Eye G instrument will meet the calibration frequencies required by 10 CFR 34.47(c), 10 CFR 34.47(g)(4), and 10 CFR 34.25(b)(1). Different calibration frequencies for the same instrument can present a challenge for the radiographer and radiographer's assistant when recording calibration dates for all three modalities (survey instrument, electronic personal dosimeter, and alarm ratemeter), and could result in using an instrument that is out of calibration for a specific modality.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Thank you for your cooperation.

Sincerely,



Roberto J. Torres, Senior Health Physicist
Nuclear Materials Safety Branch B

Docket: 030-35252
License: 42-32219-01
Control: 574437

Hill, Carol

From: Torres, RobertoJ
Sent: Wednesday, December 28, 2011 4:14 PM
To: Hill, Carol
Subject: FW: Amendment request for authorization to use Rad-Eye G
Attachments: Team-NRC Amend Req. Addt'l Info - Add RadEye G.pdf; Team-NRC Amendment Request - Add RadEye G.pdf; NRC-Team - Amend request reponse 051111.pdf

RECEIVED

DEC 28 2011

Amendment request.

From: Tebo, David [<mailto:David.Tebo@TeamInc.com>]
Sent: Wednesday, December 28, 2011 3:37 PM
To: Torres, RobertoJ
Cc: Banfield
Subject: Amendment request for authorization to use Rad-Eye G

DNMS

Mr. Torres,

Team Industrial Services is requesting reconsideration of our amendment request for authorization to use the Sentinel Rad-Eye G instrument. Attached is a second request providing additional information/clarification as requested in your letter dated May 11, 2011. A copy of that letter as well as a copy of our original request dated February 14, 2011 is also attached for your reference.

Team would like to move forward in the upcoming new year in utilizing the technology available with devices such as the Rad-Eye and would appreciate your assistance in granting the approval. We feel the attached request addresses your concerns and clarifies our desired intend for use of the instrument. However, should you need any additional information or have any questions please feel free to contact me.

Sincerely,

David P. Tebo
Corporate Radiation Safety Officer
TEAM Industrial Services, Inc
Office: 219-838-0505
Mobile: 219-229-2909
Fax: 219-838-8558 or 708-367-9949
David.Tebo@TeamInc.com

Tell us how we are doing!
Take the Customer Satisfaction Survey online @
[Internal \(Corporate\) Survey](#)

"Safety First In Everything We Do"

DEC 29 2011

DATE

This is to acknowledge the receipt of your letter/application dated DEC 28 2011, and to inform you that the initial processing, which includes an administrative review, has been performed.

There were no administrative omissions. Your application will be assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card:

The action you requested is normally processed within 90 days.

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** No. 57661.4
When calling to inquire about this action, please refer to this mail control number.
You may call me at 817-860-8103.

Sincerely,



Licensing Assistant

BETWEEN:

Accounts Receivable/Payable
and
Regional Licensing Branches

[FOR ARPB USE]
INFORMATION FROM LTS

Program Code: 03320
Status Code: Pending Amendment
Fee Category: 2B 3O 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: 12/28/2011
Docket Number: 3035252
Mail Control Number: 576614
License Number: 42-32219-01
Action Type: Amendment

2. FEE ATTACHED

Amount: _____
Check No.: _____

3. COMMENTS

Signed: Carol R. Heise

Date: 12/29/11

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: _____