

**The following items are requested for the
Remote Occupational Radiation Safety Inspection
at Callaway**

**Dates of Inspection: 05/20/2020 to 03/29/2020
to allow for Remote Inspection and Memorial Day Holiday**

Integrated Report 2020002

Inspection areas are listed in the attachments below.

Please provide the requested information on or before **Tuesday, May 19, 2020**.

Please submit this information using the same lettering system as below. For example, all contacts and phone numbers for Inspection Procedure 71124.02 should be in a file/folder titled "2-A," applicable organization charts in file/folder "2-B," etc.

The information should be provided in electronic format or a secure document management service. If information is placed on a *secured document management system*, please ensure the inspection exit date entered is at least 30 days later than the onsite inspection dates, so the inspectors will have access to the information while writing the report.

In addition to the corrective action document lists provided for each inspection procedure listed below, please provide updated lists of corrective action documents at the entrance meeting. The dates for these lists should range from the end dates of the original lists to the day of the entrance meeting.

If more than one inspection procedure is to be conducted and the information requests appear to be redundant, there is no need to provide duplicate copies. Enter a note explaining in which file the information can be found.

If you have any questions or comments, please contact Bernadette Baca at 817-200-1235 or via e-mail at Bernadette.Baca@nrc.gov.

PAPERWORK REDUCTION ACT STATEMENT

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control number 3150-0011.

2. Occupational ALARA Planning and Controls (71124.02)

Date of Last Inspection: **April 12, 2019**

- A. List of contacts and telephone numbers for ALARA program personnel, as well as the Licensing/Regulatory Affairs staff. Please include area code and prefix. If work cell numbers are appropriate, then please include them as well.
- B. Applicable organization charts including position or job titles. Please include as appropriate for your site, Site Management, RP, Chemistry, Maintenance (I&C), Engineering, and Emergency Protection.
- C. Copies of audits, self-assessments, LARs, and LERs, written since the date of last inspection, focusing on ALARA
- D. Procedure index for ALARA Program procedures and other related disciplines.
- E. Please provide specific procedures related to the following areas noted below. Additional Specific Procedures may be requested by number after the inspector reviews the procedure indexes.
1. ALARA Program
 2. ALARA Planning
 3. ALARA Reviews
 4. ALARA Committee
 5. Radiation Work Permit Preparation
- F. Please provide a list of NRC Regulatory Guides and NUREGs that you are currently committed to relative to this program. Please include the revision and/or date for the commitment and where this may be located in your current licensing basis documents.
- G. Please provide a summary list of corrective action documents (including corporate and sub-tiered systems) written since the date of last inspection, related to the ALARA program, including exceeding RWP Dose Estimates since the date of the last inspection.
- NOTE: These lists should include a description of the condition that provides sufficient detail that the inspectors can ascertain the regulatory impact, the significance level assigned to the condition, the status of the action (e.g., open, working, closed, etc.) and the search criteria used. Please provide in document formats which are “sortable” and “searchable” so that inspectors can quickly and efficiently determine appropriate sampling and perform word searches, as needed. (Excel spreadsheets are the preferred format.) If codes are used, please provide a legend for each column where a code is used.
- H. List of work activities (RWPs) greater than 1 rem, since the date of the last inspection, including the original dose estimates and actual doses accrued. (Excel format preferred). Please provide all revisions/changes, as well as any related RWPs that support the work activity.
- Provide any post evaluations, lessons learned, and/or corrective action documents generated as a result of this work activity. If available, provide any justifications/reasons for actual dose exceedances of the initial dose estimate.
- I. Provide a copy of the ALARA outage reports or evaluations for the two most recently completed outages. The last outage was listed as March-April 2019.

- J. Site dose totals for the past 3 years (based on dose of record). In addition, please provide another document that separates the online and outage doses for the past 3 years.
- K. Most recent assessment of your isotopic mix, including the hard-to-detect radionuclides and alpha hazards. Include a list of new and historical exposure issues (radiological source term or high exposure areas/activities).
- L. Current exposure trends (BRAC dose rates and/or source term information)
- M. Please provide the methods/reports that are in your process to meet the requirements of 10 CFR 20.1101(c) for periodic review of your RP program.

4. Occupational Dose Assessment (Inspection Procedure 71124.04)

Date of Last Inspection: **May 25, 2018**

- A. List of contacts and telephone numbers for the Dose Assessment personnel, as well as the Licensing/Regulatory Affairs staff. Please include area code and prefix. If work cell numbers are appropriate, then please include them as well.
- B. Applicable organization charts including position or job titles. Please include as appropriate for your site, Site Management, RP, Chemistry, Maintenance (I&C), Engineering, and Emergency Protection.
- C. Copies of audits, self-assessments, vendor or NUPIC audits of contractor support, and LERs written since date of last inspection, related to Occupational Dose Assessment
- D. Procedure indexes for Occupational Dose Assessment procedures and other related disciplines.
- E. Please provide specific procedures related to the following areas noted below. Additional Specific Procedures will be requested by number after the inspector reviews the procedure indexes.
 - 1. Radiation Protection Program
 - 2. Radiation Protection Conduct of Operations
 - 3. Personnel Dosimetry Program
 - 4. Electronic Dosimeters
 - 5. Air Sample Analysis
 - 6. Performance of High or Special Exposure Work
 - 7. Declared Pregnant Worker
 - 8. Bioassay Program (Internal Dose Assessment)
- F. Please provide a list of NRC Regulatory Guides and NUREGs that you are currently committed to relative to this program. Please include the revision and/or date for the commitment and where this may be located in your current licensing basis documents.
- G. Please provide a summary list of corrective action documents (including corporate and sub-tiered systems) written since date of last inspection, associated with:
 - 1. National Voluntary Laboratory Accreditation Program (NVLAP)
 - 2. Dosimetry (TLD/OSL, etc.) problems
 - 3. Electronic alarming dosimeters
 - 4. Bioassays or internally deposited radionuclides or internal dose
 - 5. Neutron dose

NOTE: These lists should include a description of the condition that provides sufficient detail that the inspectors can ascertain the regulatory impact, the significance level assigned to the condition, the status of the action (e.g., open, working, closed, etc.) and the search criteria used. Please provide in document formats which are "sortable" and "searchable" so that inspectors can quickly and efficiently determine appropriate sampling and perform word searches, as needed. (Excel spreadsheets are the preferred format.) If codes are used, please provide a legend for each column where a code is used.

- H. List of positive whole body counts (excluding K-40) and skin dose assessments since date of last inspection, include date(s), reason(s), activity assessed, and doses calculated and assigned. Names and personal information must be redacted. The records can be linked/related to condition reports if needed.
- I. Part 61 analyses or other analyses of plant isotopic mixture (alpha, beta, gamma, and neutron) for appropriate instrumentation calibration sources and dosimetry selection and hard-to-detect plant nuclide scaling factors for intakes/uptakes.
- J. The most recent National Voluntary Laboratory Accreditation Program (NVLAP) accreditation report or, if dosimetry is provided by a vendor, the vendor's most recent results and which dosimeter(s) is (are) use at the site and for what purpose(s). (DLR, neutron, environmental, etc.)
- K. Please provide the latest assessment of your radiological source term as it relates to the internal/external exposure of workers.
- L. If available, please provide your latest source term reduction strategy.
- M. Please provide the LLDs or MDAs for each onsite WBC or other internal dose assessment instrumentation.
- N. Please provide the latest neutron source term characterization. Describe why the neutron dosimetry used is appropriate for these locations.
- O. Please provide the location of personnel dosimetry storage location(s) and controls. Please provide a comparison of dose/dose rate for the dosimetry locations to demonstrate the storage locations are adequate for the storage of dosimetry.
- P. A list of airborne radioactivity areas (and associate RWPs) where DAC-hour monitoring was used with air sampling to track and assign dose. (BZ lapel air samples, etc.). A log of air sampling data with location and results is preferable.
- Q. Please provide a count of workers that declared a pregnancy, since the last inspection, and any Declared Pregnant Worker monitoring of worker and fetus performed. Please redact any sensitive information. If more than three individuals, a selection will be made to review their records in accordance with procedures.
- R. A list of EDEX or multi-badge dosimetry uses since the last inspection, include the associated RWP, EAD/SRD set points, and dose accrued.

From: [Baca, Bernadette](#)
To: [Geyer, Johann S](#); [Kovar, James P](#)
Subject: Remote Occupational Radiation Safety Inspection 71124.02 and 71124.04
Date: Friday, April 17, 2020 3:30:00 PM
Attachments: [CAL 2020002 RS24 Wishlist.docx](#)

Johann and Jim,

Please find attached the request list for the May 20 – 29, 2020, Remote Occupational Radiation Inspection using Inspection Procedures 71124.02 and 71124.04. Please confirm receipt of the request which ensures I sent the attachment appropriately.

Due to the current situation regarding the COVID-19 Public Health Emergency, the NRC has determined certain inspections may be conducted remotely. This inspection was determined, for safety reasons, advantageous to be conducted remotely. Thank you for your time and cooperation in assisting with the conduct of this inspection in a method different from prior inspections.

During May 20 – 21, 2020, I will be reviewing uploaded, to a secure document management service, and/or submitted documentation and formulating questions we will be discussing from May 26-29, 2020. You will only be billed for inspection time during this time period. Given the nature of potential delays during a remote inspection (to include a holiday on March 25th with expected absences March 22nd) additional time was included to ensure document communications, reviews, and discussions can be made to avoid time crunches.

As appropriate, I would like to request access to the requested material by **May 19, 2020**.

The information requested may be provided in either electronic or paper media or a combination of these. Information may be uploaded or submitted as it is compiled and does not need to be performed in a single action. Information provided in electronic media may be in the form of uploads to a secured document management service, e-mail attachments, or CD/DVD. The agency's text editing software is MS Word; however, we have document viewing capability for Adobe Acrobat (.pdf) text files as well as MS Excel files.

I have one request during May 26-29, 2020, I would like a daily copy of any related condition reports generated relating to the inspection. This way I can close out as many of those as I can while in the inspection mode.

When available, please inform me of the scheduled Entrance meeting time. If possible, I would like to schedule an Exit meeting in the early afternoon on Friday. However, I am flexible to work with your schedule.

The NRC has use of the SKYPE application and, if needed, we can schedule video sessions for debriefs and other discussions as the inspection progresses. Not knowing what the best method of communication will be, I will have my cell phone handy (my internet provider likes to meter the internet connectivity at the most inopportune times). You can reach me at [REDACTED]. I will be logged on daily for emails and Instant Messenger (IM) chats.

If you have questions, please contact me.

Bernadette Baca

Health Physicist
US NRC Region 4, DNMS, RxIB
817-200-1235

REGION IV VISION: Together, we work to foster a culture of high trust that maximizes professional growth and inspires leadership at all levels

Good advice is always certain to be ignored, but that's no reason not to give it.
Agatha Christie, writer