

# P<sub>4</sub> Production, LLC

---

Soda Springs Plant  
1853 Highway 34  
P.O. Box 816  
Soda Springs, Idaho 83276-0816  
Phone: (208) 547-4300  
Fax: (208) 547-3312

February 2, 2017

Jason Dykert  
Radiation Specialist  
U.S. Nuclear Regulatory Commission  
1600 E. Lamar Blvd.  
Arlington, Texas 76011-4511

RE: Materials License #11-27361-01,  
Event #52268 (dated September 27, 2016),  
Supplemental Report

Dear Sir,

On January 30, 2017, we discussed over the phone the event noted above, and you requested that we update you on the status of P<sub>4</sub> Production, LLC's response to the event. This letter responds to that request.

Please recall that our 30-Day Follow Up Report dated October 27, 2016 identified both corrective actions associated with the event's cause and additional response actions. Below, we provide brief updates on those previously identified items. We also provide information on an additional plant process that further promotes the safe management of radioactive materials at P<sub>4</sub>'s facility.

## **Status Update on Corrective Actions:**

*1. Survey all nuclear devices at P<sub>4</sub>'s facility to confirm that the devices have built-in shutters and the shutters can be locked out.*

Status: A survey of all other existing radioactive sources was performed October 25 – 27, 2016. It confirmed that all other devices in use at the plant have built in shutters, those shutters can be locked out, and the shutters were operating properly.

*2. Evaluate whether to continue using the Coke Fines vessel moisture analyzer or to return the device to Berthold (in coordination with NRC).*

Status: P4 has decided to return the Coke Fines vessel nuclear device and is currently awaiting a bid back from Berthold for proper disposition. P4 will work in conjunction with the NRC prior to returning the device.

*3. Update the site Ionizing Radiation Safety Procedure to require that, for any future new design or style of a radiation source holder, the RSO works closely with the manufacturer to ensure a thorough understanding of the operational safety instructions unique to that device.*

Status: P4 plans to add a section to the written *Ionizing Radiation Safety Procedure* which addresses understanding fully the design and operational safety features of any new, unique types of radiation sources prior to receipt. Procedure updates will be completed after the final report from NRC is received; to ensure that any updates also appropriately reflect the NRC's feedback related to this event. Any procedural updates will be communicated to site personnel via additional refresher training.

**Status of Additional Response Actions:**

*A. Replace signage located at nuclear devices, removing signage that states, "Caution Radioactive Materials", and installing signage that states, "Caution Radioactive Materials, Contact RSO prior to working on or near".*

Status: P4 has signs on order. Once they arrive, P4 will modify them to include the second clause. P4 will then post the modified signs, which will read, "Caution Radioactive Materials, Contact RSO prior to working on or near source," near all nuclear sources, removing any inconsistent signage.

*B. Re-train all plant personnel and contractors on the requirement to coordinate any work on or near nuclear devices with the RSO.*

Status: A total of six plant-wide safety meetings were held in December 2016 covering nuclear safety principles and the investigation regarding this event. Special emphasis was placed on contacting a Radiation Safety Officer (RSO) prior to working on or near a source. In attendance were all P4 employees and primary plant contractors. Attendance was tracked at these meetings and any employee missing the training was required to watch a video recording of one of the meetings. Routine radiation safety training is currently conducted at new employee orientations, and then via plant-wide refresher training at least every 36 months. To emphasize radiation awareness for non-routine contractors, P4 plans to add a question to the contractor-guest orientation/quiz to reinforce the requirement that any work conducted on or near a radioactive source must be coordinated with an RSO.

*C. Communicate to all plant personnel the causes and corrective actions identified in the investigation.*

Status: The causes, corrective actions, and response actions were reviewed in the December 2016 plant-wide safety meetings referenced above.

*D. Review the Radioactive Materials License and pursue amendments as appropriate to align license conditions with current facility operations.*

Status: P4 plans to pursue an amendment to Material License #11-27361-01. At a minimum, the amendment will seek to align clearly Condition 17A with facility practices. P4 intends to submit the amendment application once P4 has received NRC's feedback on the September 2016 event and no later than the license's expiration in June of 2018.

**Additional Relevant Plant Process:**

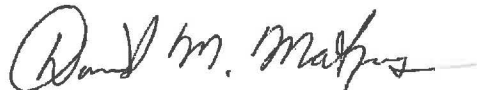
In addition to the procedures and routine training described above, P4 has a related process that further reinforces the safe management of radioactive materials at the plant. Every assigned job requires personnel to complete a Work Execution Envelope which is designed to ensure that all necessary analyses, approvals, permits, and communications have occurred or been obtained. One required element of this process is a Job Safety Analysis (JSA) which all personnel that will be performing the job must complete. Section #2 of the JSA form specifically addresses potential radiation hazards and the requirement to contact an RSO as shown below:

2	What energy sources have been locked out, blocked, and/or tagged out? _____
NOTE: Sources of energy may include radiation, gravity, capacitors, springs, electrical, pneumatic, etc. Contact radiation safety officer for nuclear sources within 3 feet of work area.	

Crew Supervisors are responsible for ensuring that the JSA procedure is properly followed on job orders for both routine and non-routine work and providing coaching to personnel as appropriate. JSA training is performed at new hire orientation and is discussed in the Contractor safety training video. Additional training is conducted when there are any updates/changes to the forms and/or process. Refresher JSA training occurs at least once every 36 months. The most recent plant-wide refresher training occurred in April 2016. Because the requirement to contact an RSO as appropriate is an element of the JSA process, the ad-hoc supervisor coaching and the initial, refresher, and as-needed interim training on the JSA process reinforce the requirement that appropriate jobs must be communicated to an RSO.

We feel confident that the corrective and response actions and the JSA process described above will prevent reoccurrence of this type of incident. Please feel free to contact us if clarification or further information is required regarding this matter.

Sincerely,



David Matyus

Industrial Hygienist/RSO

## Dykert, Jason

---

**From:** DYKSTRA, BRADLEY G [AG/1850] <bradley.g.dykstra@monsanto.com>  
**Sent:** Monday, February 06, 2017 8:59 AM  
**To:** Dykert, Jason  
**Cc:** MATYUS, DAVID M [AG/1850]  
**Subject:** [External\_Sender] RE: Supplemental report question

Jason,

Dave is out of the office this week, so I am responding to your questions below on his behalf.

Concerning your questions about how contact with the RSO is defined, we believe that this is clarified in the Plant's *Ionizing Radiation Safety Procedure* per the following excerpts:

"Any employee or contractor who is working on or near a nuclear source shall coordinate their efforts with the plant RSO or RSO trained personnel. The RSO will review the circumstances of the work to be performed, evaluate any exposure related safety or health concern and take preventative measures. "

"Preventative measures may include locking out the source by securing the shutter in the off position, conducting exposure dosimetry on the potentially exposed employee, performing additional training regarding nuclear safety, performing area radiation surveys using the survey meter, or stopping the job all together. "

This implies coordination with and preventative measures by the RSO prior to the job taking place. This is what section #2 of the Job Safety Analysis (JSA) process is intended to trigger as well; and the JSA is completed prior to each job being performed. This distinction can be re-emphasized/clarified in refresher training for both the JSA process and the *Ionizing Radiation Safety Procedure*. We will plan to do that as part of the update/refresher training that will need to be conducted; following the updates made to the *Ionizing Radiation Safety Procedure* (per corrective actions to be taken related to this incident).

You raise a good point concerning the literal translation of the word "contact." We believe that can be clarified via procedure and training as proposed above. However we now plan to also modify the signage corrective action previously indicated; for additional clarity at each nuclear device location. Rather than updating signs to read "*Caution Radioactive Materials, Contact RSO prior to working on or near source*" as previously indicated, we will instead update the signs to read "*Caution Radioactive Materials, Contact RSO to review job prior to working on or near source.*" The three additional words will more clearly indicate the requirement for active involvement of the RSO in job review prior to proceeding.

Please let me know if you have additional questions or concerns. Thanks.

Brad Dykstra  
Business Unit Leader (BUL),  
SQESH

208-547-1250 (office)  
314-452-5699 (mobile)

Monsanto Company  
1853 Highway 34  
Soda Springs, ID 83276