

Savannah River

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Talking Points

Introduction:

- Employed with Contractor SRNS at Savannah River Site
- QA Programs & Process Group – Operational Excellence
- Causal Analysis related title:
 - Causal Analysis Program Manager
- Causal Analysis related Roles & Responsibilities:
 - Subject Matter Expert
 - Instructor
 - Site Lead Apparent/Root Cause Analyst
 - Causal Analyst Qualifying Program Manager
 - Quality Grading Lead



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Virtual Root Cause Analysis

SRNS Causal Analysis Case Study

Event: Contamination found in Corridors 2 and 6

❖ *SRNS use of BlueDragon® Critical Thinking & Complex Problem-Solving Process during COVID-19.*

William R. Hall, Presenter

- SRNS Causal Analysis Program Manager
- SRNS Root Cause Analysis Subject Matter Expert (SME)

BD-F2020 Users Group Meeting, 12/17/20

12/9/2020

Talking Points:

- SRNS started using BlueDragon in 2018
- Program Implementation:
 - Qualification Program
 - Lead Root Cause Analyst (LRCA) – 5 qualified
 - Lead Apparent Cause Analyst (LACA) – 19 qualified
 - Causal Analysts Community Meetings
 - Quality Grading Process of completed RCAs & ACAs
 - Grading results feedback to Analyst(s) and Responsible Manager
- 40+ individuals have been trained (most face-to-face / 5-6 participated virtually)
 - BlueDragon overview was provided to Managers

Case Study - Background

- **Commissioned by the Responsible Facility**
- **Mobilized core Root Cause Analysis (RCA) Team 2nd Week in August 2020**
 - SME's from:
 - *Facility Operations, Rad Protection, Quality Programs, Fire Protection & Process Engineering*
- **Time to complete RCA**
 - 3 weeks (to include outbrief* the Responsible Facility management & Stakeholders)
 - 1 week to draft and finalize written RCA report

***Media used to perform investigation (interviews) & conduct team meetings**

- Skype for video sharing
- Audio Business Teleconferencing to converse with RCA team & for outbrief
 - *Shared Causal Chart to outbrief management and stakeholders*

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BD-F2020 Users Group Meeting, 12/17/20

12/9/2020, 3

Talking Points:

Commissioned by the Responsible Facility following the completion of Fact Finding

Using the facilitated BD approach allowed the team to uncover several weaknesses

Problems found:

1. Corridors 2 and 6 impeded access to other processing areas
2. Affected part of system could not be used until issue was resolved.
3. Had been a “Lack” of effective contamination control
4. Documentation of previously identified weaknesses were not being tracked appropriately
5. Material used in facility to control the spread of water hadn’t always received appropriate approval

Case Study - RCA Team

- 2 Facility Qualified Lead Apparent Cause Analysts (LACAs)
- Facility Operations Manager*
- Facility Fire Protection Engineering
- Facility Radiological Protection Department (RPD) First Line Manager (FLM)
- Facility ESSH and Environmental Compliance Manager
- SRNS Causal Analysis Program Manager (Investigation Lead)
- Facility Quality Assurance Program Specialist (Observer)

* Represented Operations as needed.



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BD-F2020 Users Group Meeting, 12/17/20

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Talking Points:

RCA Team

Program Manager, SRNS Causal Analysis Program

- Root Cause Team Lead
- Qualified Lead Root Cause Analyst/Practitioner

2 Qualified Lead Apparent Cause Analysts

- Root Cause Lead Analyst In-Training Candidate; Team Member
- Trained and Qualified Lead Apparent Cause Analyst for SRNS

Radiological Protection Department (RPD) First Line Manager (FLM)

- Root Cause Team Member

RCA Team (cont'd)

Fire Protection Engineer

- Root Cause Team Member

ESSH and Environmental Compliance Manager

- Root Cause Team Member

Facility Operations Manager

- Root Cause Team Member

Quality Assurance Program Specialist

- Root Cause Observer

Case Study - Scope, Methodology and Process*

- Identified the Scope
- Held “kick-off” meeting w/Management Sponsor
- Developed Problem Statement
- Performed research and Data Analysis
- ID Barriers, determined effectiveness of Barriers
- Developed Lines of Inquiry (LOI)
- Determined most suitable Analysis Model (Method)
- Identified individuals to interview
- Scheduled and conducted interviews
- Used “Why-Why” and Socratic Questioning during interviews



* All interaction done virtually using Skype and audio business conferencing.

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BD-F2020 Users Group Meeting, 12/17/20

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Talking Points:

1. Scope – the team was to determine the root cause(s) and identify any contributing factors
2. Problem statement - The team drafted Problem Statement:
“On July 23, 2020, during normal operation of an absorption system, at approximately 0730, an operator noticed standing water in Corridors 2 and 6 coming from under the West door of one of the process rooms. The operator notified the proper shift management and Radiological Protection Department (RPD) immediately. Additional absorbent material was placed on the water in the corridors to control (keep) the water from spreading farther. As a precaution pending survey results, RPD expanded the existing Radiological Buffer Area. Although no detectable elevated air activity was present in the corridors, the wet smears taken of the water indicated a very high level of contamination was present in the water. Due to the level of detectable contamination found the area was deemed a High Contamination Area (ACA) and was posted appropriately.”
3. Kick-Off Mtg – the team met with and briefed the Management Sponsor
4. Barrier Analysis – reviewed and evaluated effectiveness of barriers

Case Study - Casual Analysis Sessions*

- **Conducted question and answer sessions**
 - Had conversations during interviews
 - Were able to expand on LOIs during interviews
- **Engaged individuals (across functional disciplines) - non-exempt to management**

- | | |
|--|---|
| ✓ Radiological Protection Depart (RPD) Inspector | ✓ Reps for Management Team & Stakeholders |
| ✓ Shift Technical Engineer (STE) | ✓ Reps from Facility Management Team |
| ✓ Fire Protection Engineers (FPEs) | ✓ Facility Training Supervisor |
| ✓ Fire Protection Engineering Mgrs. | ✓ Facility Operations Training Trainer |
| ✓ Radiological Protection Department FLM | |
| ✓ Facility Operations Manager | |
| ✓ Facility System/Process Engineers | |



* All interaction done virtually using Skype and audio business conferencing.

Talking Points:

- Using the layout of the “Chart” made it easier to organize and process the information.
- Using the BD approach to Causal Analysis provides a quicker and more efficient way for performing Causal Analysis.

Case Study - Take Away (Virtual Platforms Use w/BlueDragon)

Pros :

- Continue use of Root / Apparent Cause Analysis Process
- Did not have to change how BlueDragon Process is executed
- Sessions weren't as long

Cons:

- Often the audio conference connection would drop without notice
- Difficult reading presentation depending on font size or monitor being used
- Those on audio teleconference would over-talk each other
 - Would have to request interviewee or individual to repeat themselves
- Learning Gap
 - Had to learn "how-to" operate/maneuver through different visual/audio services
- Unable to use the color sticky during sessions (i.e., camera not allowed on government equipment)



Talking Points:

- Speak to a few Pros/Cons:
 - Pros – allowed continued use of BD for Causal Analysis
 - Cons – Calls would be dropped
 - Cons – Unable to use the color sticky
- Since implementing the use of BD, the results have greatly improved
 - Causes are determined faster
 - Quality of results (i.e., Results to Prevent the Recurrence and Occurrence of issues) have proven to be more effective.

Questions and Wrap Up

