

Pangborn, Brenda

From: Pangborn, Brenda
Sent: Monday, March 21, 2011 12:06 PM
To: Demers, Joseph
Subject: FWS questionnaire
Attachments: Field Work Supervisor Interview Questions.docx

Field Work Supervisor Interview Questions:

Name: _____

1. Describe your relevant work experience. Total Years: _____ Years as a FWS _____

Years in Nuclear Work: _____ Years in D&D of nuclear facilities: _____

Years at PFP: _____ Years as FWS PFP _____

2. Describe your education/Training/Qualifications for being assigned as a FWS:

3. Describe your education/training/qualifications for radiation protection.

4. How is the work at PFP divided among the FWS at PFP?

5. Who has overall responsibility for radiation safety of the work when you are the field work supervisor?

6. When is radiological control technician presence at the job site required and why?

7. Describe an experience you had where the radiological controls were inadequate for the work, where you were the field work supervisor. What was the “lessons learned”?

8. Describe the process you use to ensure appropriate radiological work planning is performed. Describe your role in the work planning process. What data/resources/inputs do you use?:

9. Show examples of current work you are involved with the planning:

10. How do you ensure appropriate radiological controls are specified in the work package?

11. How is airborne radioactivity controlled for D&D work?

12. What are the limitations, if any, for the methods described?

13. How do you ensure adequate controls for airborne radioactivity have been incorporated into the work you supervise?

14. Describe when changes in the work need additional planning.

15. Show examples of re-planning currently in planning:

16. What work planning meetings do you attend/call?

17. What is your schedule of meetings for the next two weeks?

Field Work Supervisor Interview Questions: (3/2/2011 @ 3:00)

Name: (b)(6)

1. Describe your relevant work experience. Total Years: (b)(6) Years as a FWS (b)(6)

(b)(6) the work at PFP. (b)(6)
at PFP (b)(6)

Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: PFP

Years at PFP: (b)(6) Years as FWS PFP (b)(6)

2. Describe your education/Training/Qualifications for being assigned as a FWS:

Trained per work planner qualification program, interviewee noted:

- Qualification binder
- Work management training
- FWS, Craft
- OJT/OJE
- Required reading and
- JCS/work control system

3. Describe your education/training/qualifications for radiation protection.

- Radiological Worker 2, nothing additional

4. How is the work at PFP divided among the FWS at PFP?

Interviewee assigned per manager, currently assigned (b)(6) which has been working (b)(6) schedule and priority changes. Currently, reports to (b)(6) a superintendant who directly reports to D&D manager.

5. Who has overall responsibility for radiation safety of the work when you are the field work supervisor?

Responded, that RWP primarily meet requirements and RadCon specifies. FWS is responsible for overall work.

6. When is radiological control technician presence at the job site required and why?

When RWP calls out coverage level. Interviewee indicated that coverage has been more consistently required given the scope of work being D&D. RCTs are generally there and watch, for example system breeches.

7. Describe an experience you had where the radiological controls were inadequate for the work, where you were the field work supervisor. What was the "lessons learned"?

Initially none recalled. Asked about the general case, interviewee responded [redacted] would stop the work, discuss with RCTs, call duty RCM id needed and notify management. (b)(6)

Follow up asked about situations where differing opinions regarding RadCon occurred and how resolved. Interviewee stated that [redacted] would discuss with RCTs, try to resolve locally. If the issue was written, elevate to supervision to get others "right people" involved. (b)(6)

The interviewee stated that adequate time was available to resolve these types of questions.

8. Describe the process you use to ensure appropriate radiological work planning is performed. Describe your role in the work planning process. What data/resources/inputs do you use?:

Starts with pre-planning and always have both operations and RCTs. In addition, conduct walk downs with all crafts leading to AJHA. RadCon involvement is ensured by the requirement for them to approve the AJHA.

Example – In the last couple of months work in (b)(6)

(b)(6) initially, RadCon wanted to install glove bags for the stud removal. Discussion with RadCon and craft regarding using sleeves Vaseline and a cold chisel as an alternative. After discussions, RadCon agreed to the alternate plan, which was successful. (b)(6) also noted that the box had been fixed with PBS.

9. Show examples of current work you are involved with the planning:

Currently planning for (b)(6)
(b)(6)

Planning for (b)(6)
(b)(6)

Primarily works with (b)(6)

10. How do you ensure appropriate radiological controls are specified in the work package?

Controls can be in the work package, "don't change too much." Controls in RWPs and stated that they rely on RCTs and the RadCon engineer for controls.

Interviewee noted that RadCon wants glove bags but operations likes to use sleeves, esp. for flanges generally.

11. How is airborne radioactivity controlled for D&D work?

Interviewee provided :

- Use of sleeves or glove bags
- Down draft ventilation (vacuums)
- Tape and cut methods
- Use of scratch tests for painted contamination
- Has been to the ALARA center

Interviewee discussed high dose work and ALARA center's tungsten shields for work.

12. What are the limitations, if any, for the methods described?

Limitation is that the vent has to be $\frac{1}{2}$ duct diameter of the opening of point source vent in general. This has been in past work packages.

13. How do you ensure adequate controls for airborne radioactivity have been incorporated into the work you supervise?

Recognize higher hazard type work. Then take additional time in pre-job and more thought, e.g. more surveys and/or move ventilation.

Has not seen work packages for higher hazard but will be more controls for those.

14. Describe when changes in the work need additional planning.

(b)(6) _____ If changes are needed in general _____ calls the DA/engineer, explains the need for the change. If the DA accepts the DA allows the change and ensures appropriate review and approval. These always included the DA, FWS, USQ and SOM as a minimum. The DA also is responsible for others as needed; typically these include IH and RadCon.

15. Show examples of re-planning currently in planning:

(b)(6) _____ _____ has worked to one change done involving changes glove bag (long bag with small second stage) which needed additional structural support.

16. What work planning meetings do you attend/call?

(b)(6) _____ AJHA meetings, scoping meetings, brainstorming sessions, and works with the line planner who helps the process along. _____ also participates in HRBs and enhanced ALARA committees?

17. What is your schedule of meetings for the next two weeks?

No meetings currently schedules in the next two weeks. Interaction meetings daily @ 6:30 and weekly status meetings with D&D manager.

Field Work Supervisor Interview Questions: (3/2/2011 @ 3:00)

(b)(6) Name: FWS [redacted]

1. Describe your relevant work experience. Total Years: (b)(6) Years as a FWS (b)(6)

(b)(6) the work at PFP. (b)(6)
at PFP (b)(6)

Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: (b)(6)
Years at PFP: (b)(6) Years as FWS PFP (b)(6)

2. Describe your education/Training/Qualifications for being assigned as a FWS:

Trained per work planner qualification program, interviewee noted:

- Qualification binder
- Work management training
- FWS, Craft
- OJT/OJE
- Required reading and
- JCS/work control system

3. Describe your education/training/qualifications for radiation protection.

- Radiological Worker 2, nothing additional

4. How is the work at PFP divided among the FWS at PFP?

Interviewee assigned per manager, currently assigned (b)(6) which has been working (b)(6) schedule and priority changes. Currently, [redacted] reports to (b)(6) a superintendant who directly reports to D&D manager.

5. Who has overall responsibility for radiation safety of the work when you are the field work supervisor?

Responded, that RWP primarily meet requirements and RadCon specifies. FWS is responsible for overall work.

6. When is radiological control technician presence at the job site required and why?

When RWP calls out coverage level. Interviewee indicated that coverage has been more consistently required given the scope of work being D&D. RCTs are generally there and watch, for example system breeches.

7. Describe an experience you had where the radiological controls were inadequate for the work, where you were the field work supervisor. What was the "lessons learned"?

Initially none recalled. Asked about the general case, interviewee responded [redacted] would (b)(6) stop the work, discuss with RCTs, call duty RCM id needed and notify management.

Follow up asked about situations where differing opinions regarding RadCon occurred and how resolved. Interviewee stated that [redacted] would discuss with RCTs, try to resolve (b)(6) locally. If the issue was written, elevate to supervision to get others "right people" involved.

The interviewee stated that adequate time was available to resolve these types of questions.

8. Describe the process you use to ensure appropriate radiological work planning is performed. Describe your role in the work planning process. What data/resources/inputs do you use?:

Starts with pre-planning and always have both operations and RCTs. In addition, conduct walk downs with all crafts leading to AJHA. RadCon involvement is ensured by the requirement for them to approve the AJHA.

Example – In the last couple of months work in (b)(6)

(b)(6) Initially, RadCon wanted to install glove bags for the stud removal. Discussion with RadCon and craft regarding using sleeves Vaseline and a cold chisel as an alternative. After discussions, RadCon agreed to the alternate plan, which was successful. (b)(6) also noted that the box had been fixed with PBS.

9. Show examples of current work you are involved with the planning:

Currently planning for (b)(6)

(b)(6)

Planning for (b)(6)

(b)(6)

Primarily works with (b)(6)

10. How do you ensure appropriate radiological controls are specified in the work package?

Controls can be in the work package, "don't change too much." Controls in RWPs and stated that they rely on RCTs and the RadCon engineer for controls.

Interviewee noted that RadCon wants glove bags but operations likes to use sleeves, esp. for flanges generally.

11. How is airborne radioactivity controlled for D&D work?

Interviewee provided :

- Use of sleeves or glove bags
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- Tape and cut methods
- Use of scratch tests for painted contamination
- Has been to the ALARA center

Interviewee discussed high dose work and ALARA center's tungsten shields for work.

12. What are the limitations, if any, for the methods described?

Limitation is that the vent has to be $\frac{1}{2}$ duct diameter of the opening of point source vent in general. This has been in past work packages.

13. How do you ensure adequate controls for airborne radioactivity have been incorporated into the work you supervise?

Recognize higher hazard type work. Then take additional time in pre-job and more thought, e.g. more surveys and/or move ventilation.

Has not seen work packages for higher hazard but will be more controls for those.

14. Describe when changes in the work need additional planning.

(b)(6) _____ If changes are needed in general [] calls the DA/engineer, explains the need for the change. If the DA accepts the DA allows the change and ensures appropriate review and approval. These always included the DA, FWS, USQ and SOM as a minimum. The DA also is responsible for others as needed; typically these include IH and RadCon.

15. Show examples of re-planning currently in planning:

(b)(6) _____ [] has worked to one change done involving changes glove bag (long bag with small second stage) which needed additional structural support.

16. What work planning meetings do you attend/call?

(b)(6) _____ AJHA meetings, scoping meetings, brainstorming sessions, and works with the line planner who helps the process along. [] also participates in HRBs and enhanced ALARA committees?

17. What is your schedule of meetings for the next two weeks?

No meetings currently schedules in the next two weeks. Interaction meetings daily @ 6:30 and weekly status meetings with D&D manager.

Field Work Supervisor Interview Questions: (3/2/2011 @ 3:00)

Name: FWS (b)(6) _____

1. Describe your relevant work experience. Total Years: ___ Years as a FWS ___

Did not observed, at other interview.

Years in Nuclear Work: _____ Years in D&D of nuclear facilities: _____

Years at PFP: _____ Years as FWS PFP _____

2. Describe your education/Training/Qualifications for being assigned as a FWS:

Did not observe, at other interview.

3. Describe your education/training/qualifications for radiation protection.

Did not observe, at other interview.

4. How is the work at PFP divided among the FWS at PFP?

Did not observe, at other interview.

5. Who has overall responsibility for radiation safety of the work when you are the field work supervisor?

Did not observe, at other interview.

6. When is radiological control technician presence at the job site required and why?

Did not observe, at other interview.

7. Describe an experience you had where the radiological controls were inadequate for the work, where you were the field work supervisor. What was the "lessons learned"?

Note: Surveillant arrived during this question.

The FWS discussed frustration in the RCT's glove box smoke test requirement. The FWS indicated that the specification of acceptable was not consistent with different RCTs. [redacted] stated that "acceptance of the work team" had been difficult.

(b)(6)

8. Describe the process you use to ensure appropriate radiological work planning is performed. Describe your role in the work planning process. What data/resources/inputs do you use?:

- Starts with pre-planning, scoping.
- The work team meets and usually feels that too many controls are being asked for.
- The FWS talks the RadCon engineer (example 179)
- RCTs perform investigative surveys

Example – In the last couple of months work in [redacted] (b)(6) [redacted] Initially, RadCon wanted to install glove bags for the stud removal. Discussion with RadCon and craft regarding using sleeves Vaseline and a cold chisel as an alternative. After discussions, RadCon agreed to the alternate plan, which was successful. [redacted] also noted that the box had been fixed with PBS.

(b)(6)

9. Show examples of current work you are involved with the planning:

Currently planning for [redacted] (b)(6) [redacted]

(b)(6)

Planning for [redacted] (b)(6) [redacted]

(b)(6)

Primarily works with [redacted] (b)(6) [redacted]

10. How do you ensure appropriate radiological controls are specified in the work package?

Controls can be in the work package, "don't change too much." Controls in RWPs and stated that they rely on RCTs and the RadCon engineer for controls.

Interviewee noted that RadCon wants glove bags but operations likes to use sleeves, esp. for flanges generally.

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Limitation is that the vent has to be $\frac{1}{2}$ duct diameter of the opening of point source vent in general. This has been in past work packages.

13. How do you ensure adequate controls for airborne radioactivity have been incorporated into the work you supervise?

Recognize higher hazard type work. Then take additional time in pre-job and more thought, e.g. more surveys and/or move ventilation.

Has not seen work packages for higher hazard but will be more controls for those.

14. Describe when changes in the work need additional planning.

(b)(6) _____ If changes are needed in general _____ calls the DA/engineer, explains the need for the change. If the DA accepts the DA allows the change and ensures appropriate review and approval. These always included the DA, FWS, USQ and SOM as a minimum. The DA also is responsible for others as needed; typically these include IH and RadCon.

15. Show examples of re-planning currently in planning:

(b)(6) _____ _____ has worked to one change done involving changes glove bag (long bag with small second stage) which needed additional structural support.

16. What work planning meetings do you attend/call?

(b)(6) _____ AJHA meetings, scoping meetings, brainstorming sessions, and works with the line planner who helps the process along. _____ also participates in HRBs and enhanced ALARA committees?

17. What is your schedule of meetings for the next two weeks?

No meetings currently schedules in the next two weeks. Interaction meetings daily @ 6:30 and weekly status meetings with D&D manager.

Radiological Engineer/Work Planner Interview Questions: Name: Radiological Work Planner (b)(6)
2/14/11 1:00-3:00

1. Relevant work experience: Total Years: (b)(6) Years as a Radiological Engineer: ?

(b)(6)

(b)(6) reported to PFP as a radiological engineer.

Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: (b)(6)
Years at PFP: (b)(6) Radiological Engineer PFP (b)(6) No prior plutonium facility experience.

2. Describe your education/Training/Qualifications for being assigned as a radiological engineer/radiological work planner: Certified Health Physicist? Engineer? (b)(6) (b)(6)

(b)(6) health physics (b)(6) engineer.

Took the Radiological Work Planner Class,
PFP New employee check list
PFP OJT, Radiological engineer required reading, and check list.

3. How is the work at PFP divided among the 4 radiological engineers/work planners at PFP?

Radiological Work Planner #1: A-labs +
Radiological Work Planner #2: 242Z, duct level, PRF, room 172 (chop shop)
Radiological Work Planner #3: Maintenance, a/c Lines, ZB, PPSL

4. Describe if, when and how radiological engineering/radiological work planner gets involved in the work planning process.

Example, MT glove box isolation in PRF room 41. Notification was made via e-mail from the [line work] planner that they are having a walk down. Have walk down put on calendar. I go to all the walk downs that I can [new to PFP]. I talk to [the lead RCT that supports the radiological engineers] to get the history. Identify where the cuts are being made and talk containment. Getting familiar [with the facility]. Next go the AJHA. The [line work] planner will have a skeleton package. Planner need to get information for the package.

I go back to the office, fill in the paperwork/AMW.

5. Describe the process you use to plan radiological work:

Exposure estimate uses dose rates and PIC provides the hours.

Did not have a method to do airborne radioactivity calculations until a couple of weeks ago.

Now airborne calculations are documented in the AJHA as an associated document.

Contamination levels: Understands the glove boxes are over 20,000 dpm/100cm² alpha. [Lead RCT supporting the radiological work planners] would be the person/expert [on contamination levels expected] or he'll point to someone or RCT for the conditions. I look at routines. I did one last week.

6. Show examples of current work you are involved in the planning:

Will look at later.

7. What information (resources/inputs) do you use to plan of the work?

Made best guess at contamination levels

Used his experience in how tools are used to select 1×10^{-6} RF.

8. Describe your process for determining whether radiological work is high, medium or low risk radiological work. Include data/resources/inputs used.

Chop shop: Some have SCO surveys, some do not.

The contamination levels vary 100-8 million dpm/100 cm². There is one screen and one AMW for all of them. The glove boxes are being cut up. No data – contamination levels are an unknown on what and where the contamination is located.

Use surveys [if available]– do not have data.

9. Describe the process you have used for estimating doses to the workers, including inputs and where they come from.

Uses radiological surveys to obtain dose rates. The PIC (FWS) provides the hours.

10. Describe the process you have for estimating contamination levels anticipated for work, including the inputs and where they come from.

SCO has an associated radiological survey with total contamination levels. Otherwise, it is a best guess.

>20K dpm/100 cm² alpha is high hazard. Ideally you would want to know the contamination levels, but the radiological work planner indicated he does not have any way of knowing.

11. Describe the process you have used for estimating airborne radioactivity levels anticipated for work, including the inputs and where they come from.

Up until two weeks ago, we did not perform airborne radioactivity estimates. Use smear data from past work that represents what you plan to do.

12. Have you ever modified work from medium risk to low risk after screening? Describe the process and provide examples.

No. There is no advantage for doing that.

13. Show examples of the risk screening form completion from current work that is being performed and work in the planning stage.

We will look at a sample of screening forms in work packages.

14. How is the risk screening form and technical basis for screening results documented? Show examples.

The RWP request form documents the dose calculation, or it is in the AMW. Starting to use the airborne calculations. Documented in AJHA Maybe? Contamination estimates are not required. Have SCO [surface contaminated object] data.

15. Describe how requirements for mock-up training is determined? Provide examples of mock-up training used for radiological work at PFP.

I have not done any AMW that recommended mock-up training. The Radiological engineer did not know who was responsible for determining when mock-up training was required. The work being done is similar to work that has been done, then mockup training is not recommended.

16. Describe your process for determining the radiological controls for the work (containment selection, engineered ventilation, PPE, respiratory protection, Decon/workpractices/radiological surveys). Include the inputs, resources, data used (location, system, work operations...).

Radiological controls for medium/high risk work is per procedure (screening-4108/medium/high-109). Use those period.

Decon work practices: Rad engineer and work team determine - ETGS used in the McLuskey room – glycerine in the airlock surrounding the McLusky room. This radiological engineer has not done this yet.

PPE: Not yet planned any work with special PPE – i.e., standard RWP requirements

Respiratory protection: PAPR if no breach, Airline for HCA work. Asked about chop shop use of circular saw – how the plant verified adequacy for respiratory protection. Response was “I didn’t do it.” Planner could not say how the plant determined the airborne respiratory protection to be adequate for the circular saw before.

Radiological surveys: No surveys in technical work document

17. Describe your process for developing/completing the ALARA Management Worksheet. Include inputs, resources, data used to develop/prepare the AMW.

Talk to people, take a look at AMWs for similar work.

18. How are the technical bases for the radiological control decisions, including calculations, documented?

See previous answer on documentation.

19. Describe the process for determining what goes into the work package/procedure and how it gets in. Show examples from recently planned work.

Participate in walk down, go to the AJHA, complete the screening and AMW, review the procedure, be sure controls are in place.

The field work supervisor has the power to do their job. Trying to get more into the work package. I don’t know practically what will work or not.

20. Do you use the AJHA tool for radiological work planning? If so, describe (preferably show) how it is used.

Yes.

21. When a containment is prescribed, describe the process for containment design. Describe how the containment design is incorporated into the work package. Provide examples. What qualifications are prescribed for those involved in containment design?

Not involved in front end design. RCTs and planner draw up the containment design. Radiological engineer approves. This radiological engineer has not done this yet.

Procedure is required reading.

22. If radiological ventilation is prescribed, describe the process for determining what is needed and how it is designed, and how the design is incorporated into the work package. What qualifications are prescribed for those involved in spot ventilation design?

Do not know. Does not know who is involved in HEPA design or any testing that is performed.

23. Describe the process for planning work where a modification to the procedure/work package is required.

Specify in AMW if you are going to use..... get concurrence. Check package verbiage.

24. Show examples from work in progress.

Was not involved in the planning of chop shop, 172. Has approved some changes, but they did not involve a change in risk.

25. What planning meetings do you attend/call?

Walk downs, AJHA, workability walk downs, HRB, Meeting of RCTs at 7:00 AM

26. What is your schedule of meetings for the next two weeks?

1-3:00 walkdown 2/15/11 Transfer luc Phase III duct level

AJHA 8-4 Thursday, conference room MO 2106.

60-70% already planned, 30-40% not planned yet

Had an orientation for inherited work from prior Radiological Work Planner (talked to).

Radiological Engineer/Work Planner Interview Questions: Date 2/14/11 9:00AM-11:00AM

Name: Radiological Work Planner (b)(6)

1. Relevant work experience: Total Years: (b)(6) Years as a Radiological Engineer: 10-15

Rehired at PFP (b)(6) (for radiological work planner position). (b)(6)

(b)(6)

(b)(6)

2. Describe your education/Training/Qualifications for being assigned as a radiological engineer/radiological work planner: Certified Health Physicist? (b)(6) Engineer? (b)(6)

(b)(6)

Took initial rad work planner training course in 2006. Took the 2 hour refresher training February or March last year, which covered lessons learned. Walked the PFP Plant down (b)(6)

(b)(6)

3. How is the work at PFP divided among the 3 radiological engineers/work planners at PFP?

Radiological Work Planner #1 has A Labs and PPSL, rooms on the left side.

Radiological Work Planner #2 has Duct Level, McLuskey room, and PRF

Radiological Work Planner #3 has A Line, C-Line and maintenance, in addition to the ALARA program

#1 indicated this was decided among themselves. (b)(6) was not aware of any formal designation. (b)(6)

4. Describe if, when and how radiological engineering/radiological work planner gets involved in the work planning process.

Most of the stuff has already been planned. [Note this planner started work at PFP only three weeks ago-at time of interview]

I get by word of mouth when something goes wrong. They do not come to you.

Planners are pretty good at initiating response to change.

Currently I am being in the field, building a report – to get information.

Started recently, to log "Direct Changes" in the work log (old J-5)

New, 3-4 weeks at PFP, "Upset (b)(6) Options were given in the work package, Jobs are run by lead RCT, strong willed PIC [FWS] over run RCT leads. Radiological Work Planner (b)(6) indicated (b)(6) was trying to take the pressure off of the lead RCTs by putting the controls in the work package. FWS for A Labs / PPSL sees a lot.

5. Describe the process you use to plan radiological work:

Invited to AJHA. Initial screen is done in AJHA meeting. Walk downs the area (because (b)(6) has (b)(6) (b)(6) visualize work steps.

Radiological work planner (b)(6) has not yet prepared an AMW.

Were not doing airborne radioactivity calculations at PFP. Now starting. Starting to use the sample calculation form in the last two weeks. (b)(6) Procedure for airborne calculations got killed in CDMP-011.

6. Show examples of current work you are involved in the planning:

Started the planning (b)(6) Did the walk down before the AJHA. Work involves (b)(6)

7. What information (resources/inputs) do you use to plan of the work?

For (b)(6), did a walkdown before AJHA, asked for a characterization survey of the area (dose rates and contamination levels in the work area). "It is rare to have survey data."

When asked about historical information in the work area, radiological work planner (b)(6) showed (b)(6) they used FSP-PFP-IP-003. This document was provided by one of the RL surveillance team members a few weeks ago (January 6, 2011), when it was discovered that the PFP ESH manager was unaware of its existence. After being provided to the ESH manager, it was distributed to the radiological work planners.

(b)(6) Radiological work planner (b)(6) indicated they can "suggest" radiological controls.

Most RCS (b)(6) 50% of RCTs are "Junior".

8. Describe your process for determining whether radiological work is high, medium or low risk radiological work. Include data/resources/inputs used.

Use the procedure which has the form. Cumulative dose is determined by dose rates and time motion. DAC-hr is hard. Go down line by line. Now doing air calculations.

It is low if it is $<2,000$ [dpm/100cm²]

Talks to the RCTs in the field. Performs gut check with the lead RCT that supports the radiological work planners. Takes it to the RWP preparer and talks it over.

Does not "play the game" of going from medium risk to low risk, but indicated we would see some of that in other work packages at PFP.

9. Describe the process you have used for estimating doses to the workers, including inputs and where they come from.

Dose is from dose rates (survey records) and time motion. PIC provides the time data.

10. Describe the process you have for estimating contamination levels anticipated for work, including the inputs and where they come from.

Past experience indicates greater than 20,000 when breeching the system, glove box. "We do not have minor OOPS."

11. Describe the process you have used for estimating airborne radioactivity levels anticipated for work, including the inputs and where they come from.

"Have not yet". Use limiting conditions in the RWP for bounding condition. Best to use information from lessons learned (incident). "There are NDA measurements but they are not usable based on uncertainty.[Joe DeMers notes]"

12. Have you ever modified work from medium risk to low risk after screening? Describe the process and provide examples.

No.

13. Show examples of the risk screening form completion from current work that is being performed and work in the planning stage.

"Ask (b)(6) to see where the forms are stored/maintained outside the work package]."
PDF file goes to the planner. The team will pull up a sample off website.

14. How is the risk screening form and technical basis for screening results documented?
Show examples.

“Would like to PDF into AJHA form” AMW form has air calculations attached. Excel spread sheet cut and paste on stand alone.

15. Describe how requirements for mock-up training is determined? Provide examples of mock-up training used for radiological work at PFP.

No mock-ups performed for his work – only here at PFP for three weeks. Mock-ups have not come up.

16. Describe your process for determining the radiological controls for the work (containment selection, engineered ventilation, PPE, respiratory protection, Decon/workpractices/radiological surveys). Include the inputs, resources, data used (location, system, work operations...).

Controls based on experience. No boiler plate or guidance on specifying radiological controls.

Today, the radiological work planner, (b)(6) determines containment. Before, “negotiated with” collective. (b)(6) wants to “get the friction out of the field”. No standard directions exist.

PPE is in the RWP “global”. What needs to be used is determined in the field by the RCT lead.

Respiratory protection: PAPR or Fresh air. Fresh air in the chop shop.

Process improvement going on (rad work planner #2 and Work control program manager) for AJHA to document control measures. AMW does it. Radcon mitigation step in AMW or stand alone in AJHA.

17. Describe your process for developing/completing the ALARA Management Worksheet. Include inputs, resources, data used to develop/prepare the AMW.

Does AMW and screen concurrently, but has not done one yet.

18. How are the technical bases for the radiological control decisions, including calculations, documented?

See 14.

19. Describe the process for determining what goes into the work package/procedure and how it gets in. Show examples from recently planned work.

"Too much planning of work in the field" – from (b)(6)

Depends, do you need formal control. Check marks in AMW, mandatory AJHA.

Containment selection, generally yes (in package)- philosophically stated vice hands on, but for multiple cuts, not each one specified.

B-boxes, a portable hood, introducing concept as we speak – before wet rag (B boxes are a Rocky Flats device), "they" love them.

Initially the mentor was off making decisions without involving the radiological work planner, no (b)(6) is going to them to discuss (b)(6) ideas.

20. Do you use the AJHA tool for radiological work planning? If so, describe (preferably show) how it is used.

Planners are using AJHA tool. No signature, print and sign. Personally, new, has not used it yet here.

21. When a containment is prescribed, describe the process for containment design. Describe how the containment design is incorporated into the work package. Provide examples. What qualifications are prescribed for those involved in containment design?

Has not participated yet. Does not know what the qualifications are for those designing containments.

Procedure at PFP. Radiological work planner has signoff. He has signed off for a couple of containments. Bring by for approval. Just aware of job and what doing. Not sure what he is signing for.

22. If radiological ventilation is prescribed, describe the process for determining what is needed and how it is designed, and how the design is incorporated into the work package. What qualifications are prescribed for those involved in spot ventilation design?

PFP Ventilation Cog is responsible for.

23. Describe the process for planning work where a modification to the procedure/work package is required.

Poor at coming to you. Attend meetings to catch when modifications needed.

24. Show examples from work in progress.

None

25. What planning meetings do you attend/call?

RCT morning meeting in MO 970 at 7:05 AM

AJHA (portables by team)

Go to pre-ev if they have something

26. What is your schedule of meetings for the next two weeks?

Open schedule

Radiological Engineer/Work Planner Interview Questions: Name: Radiological Work Planner (b)(6)

1. Relevant work experience: Total Years: (b)(6) Years as a Radiological Engineer (b)(6)

(b)(6)

(b)(6)

Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: (b)(6)

Years at PFP: (b)(6) as Radiological Engineer PFP (b)(6)

2. Describe your education/Training/Qualifications for being assigned as a radiological engineer/radiological work planner: Certified Health Physicist? Engineer? (b)(6) (b)(6)

(b)(6)

3. How is the work at PFP divided among the 4 radiological engineers/work planners at PFP?

Radiological Work Planner #1: PPSL/166/169

Radiological Work Planner #2, PRF, Duct Level, Chop Shop 172, McLusky room [AARA-works for Assendant]

Radiological Work Planner #3, C-Line, A-Line, Rad 2 (235-D West), ZB, maintenance, outside [AARA- Works for Assendant] Thus 2 out of 3 Radiological Work Planners will be unfunded after September, 2011.

4. Describe if, when and how radiological engineering/radiological work planner gets involved in the work planning process.

Notified of planning meetings, give input at the planning meeting.

AJHA- has had to stop AJHA because the work was not planned

90% of time they like to kill 2 birds with one stone at AJHA [doing planning in the AJHA]

[The RCT lead that supports the radiological work planners] does the walk down some times.

5. Describe the process you use to plan radiological work:

Get notified by e-mail – here is a work package.

Review, send comments to the [line work] planner.

Get notice of AJHA, RCT/RCS attend AJHA

Do the screening at the AJHA based on best estimate at the time.

Go back to the office do screening and AMW, notify [line work] planner when done.

RWP request, air calculation sheet (new).

Get notified when the package is done.

Verify the changes to the package were made, Take it to the RWP preparer for RWP (may give to RWP preparer a heads up at any time [in the process]).

“Using one RWP [each] for seven processes to track exposure.”

Radiological Work Planner #3 is the ALARA Copordinator, Do not have an ALARA Committee.

6. Show examples of current work you are involved in the planning:

Gave example of changed package where unplanned 80 mr/hr to glove port, had to revise RWP to put in finger rings.

Pre-planning of work except A-line [i.e., planning of work for c-line].

7. What information (resources/inputs) do you use to plan of the work?

Everybody and anybody. Rely on engineers. Use personal knowledge of history of PFP.

8. Describe your process for determining whether radiological work is high, medium or low risk radiological work. Include data/resources/inputs used.

Survey reports used to prepare screening form.

9. Describe the process you have used for estimating doses to the workers, including inputs and where they come from.

Did not document dose estimates. “I don’t know if this is a requirement.” PIC/Planner identify crafts.

10. Describe the process you have for estimating contamination levels anticipated for work, including the inputs and where they come from.

Survey report. Assume > 20K dpm/100cm² alpha, take worst case scenarios. SCO surveys.

11. Describe the process you have used for estimating airborne radioactivity levels anticipated for work, including the inputs and where they come from.

Survey reports, using BOS form for airborne calculations.

Using TE, did not need to do airborne calculations. ZSP-6 [posting procedure] 1 real airborne radioactivity, 2 don't expect. With TE-10-001, you don't know what the hazard is, but "you will never get an airborne internal." "That's what they told us." 0.16 DAC.

The team asked the radiological work planner to calculate the internal dose for 0.16 DAC for 2x2 hrs per day throughout the year. It was 400 mrem. This appeared to be a surprise to the radiological work planner.

12. Have you ever modified work from medium risk to low risk after screening? Describe the process and provide examples.

Yes. The situation was for work that involved voluntary use of respiratory protection.

13. Show examples of the risk screening form completion from current work that is being performed and work in the planning stage.

Provided copy.

14. How is the risk screening form and technical basis for screening results documented?
Show examples.

Everything is documented in the AJHA tool. Do not document surface contamination. The new BOS airborne calculation form is used to document airborne calculations. Dose calculations are in the AMW. No documentation is performed for low risk work activities.

15. Describe how requirements for mock-up training is determined? Provide examples of mock-up training used for radiological work at PFP.

The third trailer across the street is where mock-ups are done, none there now. There is a question in the AMW about mock-ups. It is "me, the field work supervisor, the team itself" that determine if /what mock-ups are done.

16. Describe your process for determining the radiological controls for the work (containment selection, engineered ventilation, PPE, respiratory protection, Decon/workpractices/radiological surveys). Include the inputs, resources, data used (location, system, work operations...).

Looking at putting controls in the work package.

Have been hit for not being specific enough on steps, used "either or"

Look at historically contamination levels that may be present [system contamination levels and dose rates]. E-4 ducts – do in glove bag, process lines sleeve ok, when use glove bag there is ventilation in glove bag, when use wet method there is a down drafter.

One barrier is required for breach

>25,000 glove bag; >2,000 sleeve and on mask, ARA

17. Describe your process for developing/completing the ALARA Management Worksheet. Include inputs, resources, data used to develop/prepare the AMW.

Survey reports, Historical knowledge, dose rates, contamination, knowing what job is.

18. How are the technical bases for the radiological control decisions, including calculations, documented?

See prior question on documentation.

19. Describe the process for determining what goes into the work package/procedure and how it gets in. Show examples from recently planned work.

Put an x in front of the AMW when it goes into the work package. If bolded it goes in word for word.

20. Do you use the AJHA tool for radiological work planning? If so, describe (preferably show) how it is used.

Yes. The radiological work planner uses the AJHA tool.

RCS is the second signature. "I would like a second technical review.

(b)(6) — FWS or poss signs, then it goes to the RWP preparer

21. When a containment is prescribed, describe the process for containment design. Describe how the containment design is incorporated into the work package. Provide examples. What qualifications are prescribed for those involved in containment design?

Tent design: We have a procedure. Make a design at plastic shop – not sure who does it. We review. I see if it looks like it would work. We sign, they build, I never see it before it is in the work package.

22. If radiological ventilation is prescribed, describe the process for determining what is needed and how it is designed, and how the design is incorporated into the work package. What qualifications are prescribed for those involved in spot ventilation design?

“No I can’t” [tell us how this is done].

There is a ventilation SME.

In room 235B-235A1, they are going to tear out a wall. First question, smoke test to verify airflow. Have been told it is all one air space.

Does not know what the limitations are for engineered ventilation.

23. Describe the process for planning work where a modification to the procedure/work package is required.

ZB asked RWP preparer to change the RWP, did not notify the planner.

Notified of WCN. Review the WCN, see if it changes the screening.

Don’t have anything.

Walk down now

AJHA talk tools – list is in the work package. Authorized a change [100 B/C] glove bag.

24. Show examples from work in progress.

The team will review packages.

25. What planning meetings do you attend/call?

AJHA, Work planner meetings, Walk downs

“Planner doing a good job to get us involved.”

26. What is your schedule of meetings for the next two weeks?

This afternoon – change to 100 B/C

Work Planner Interview Questions:

Name: Line Work Planner (b)(6)

1. Describe your relevant work experience. Total Years (b)(6) Years as a Planner: (b)(6)

(b)(6)

came to PFP (b)(6)

- (b)(6) Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: (b)(6)
Years at PFP: (b)(6) Years as Work Planner PFP (b)(6)

2. Describe your education/Training/Qualifications for being assigned as a work planner:

(b)(6)

3. How is the work at PFP divided among the 26 work planners at PFP?

The planner supports maintenance and modification groups. (b)(6) is matrixed to work teams. Gave (b)(6) examples of air compressor work and alarm panel packages (pulling wire in conduit).

4. Describe the process you use to plan work:

1. Engineer provides work scope FMP or WPE (basic outline of work).
2. Get together [planner and engineer] and scope the work and determine hazards and mitigations.
3. Planner puts together a basic rough draft of the work package.
4. Set a planning meeting (lead craft, engineer, SMEs as needed)
5. Incorporate input from planning meeting
6. Schedule the AJHA (includes SME). Invites SME(s) based on experience.
7. Incorporate input from AJHA.
8. Review is done by FWS may meet again if needed
9. Finalize package send for review and approval.

5. Show examples of current work you are planning:

Alarm panel wiring was the example provided.

6. What information (resources/inputs) do you use to plan of the work?:

SME(s), engineers, crafts and FWS

Reviews previous work packages that were similar work.

7. How do you determine whether a radiological work planner needs to be included in the planning?

Based on the nature of the work, if in a "Rad Zone" or RBA. If [redacted] has questions about whether or not the radiological work planner is needed, [redacted] consults one. (b)(6)

8. Who do you contact in the radiological organization when you need a work planner?

Mostly worked with [redacted] (b)(6)

9. Describe the process for incorporating the information from the radiological work planner into the work package.

(b)(6) After the planning meeting and AJHA [redacted] completes the RWP request.

(b)(6) [redacted] discusses controls with the RC work planner, some are in the RWP others in the work package. Example, PPE and RCT coverage is in the RWP while the work package specifies surveys, decon, sequence with flexibility in the use of RCTs.

10. Show examples from work in progress.

Team will review packages.

11. How do you determine if planning is needed?

This planner stated that [redacted] scope is mostly planned packages. [redacted] uses NPR for repetitive maintenance when worked to procedure or data sheets.

12. What information/inputs/resources do you use to determine if planning is needed?

[redacted] considers the work scope regarding complexity and nature of the work.

13. How do you determine if HRB is needed?

(b)(6) The Rad Engineer makes this determination in (b)(6) work checklists. (b)(6) maintenance work has not generally been high risk. [redacted] stated most high risk work was in D&D and glovebox removal.

14. What information/resources/inputs do you use to determine an HRB is or is not required?

Did not really do, see question 13.

15. What is the planning process when a change to the work package is needed?

The planner is done once the work package is approved. The FWS identifies when changes are needed and engages the DA regarding the change. The FWS determines if change is needed or not.

16. Show examples currently in planning:

None provided. The team will evaluate packages separately

17. What work planning meetings do you attend/call?

Sets up the planning meeting, the AJHA.

Attends weekly schedule/status meetings with management.

18. What is your schedule of meetings for the next two weeks?

Works to the plan of the week, which comes out on Thursday.

Work Planner Interview Questions:

Name: __ Work Planne (b)(6)

1. Describe your relevant work experience. Total Years (b)(6) Years as a Planner (b)(6)

PPF since (b)(6)

(b)(6)

Years in Nuclear Work (b)(6) Years in D&D of nuclear facilities: (b)(6)

(b)(6) Years at PFP as Work Planner PFP

2. Describe your education/Training/Qualifications for being assigned as a work planner:

(b)(6)

Qualification card had required reading, plus classes (Berylium worker, rad worker, JCS, AJHA, Hazwopper, suspect materials... Plan packages under supervision. Took (b)(6) to complete.

3. How is the work at PFP divided among the 26 work planners at PFP?

Supports specific FWS. Supports rooms (electrical packages) 232 (now) 235A3 (completed) – going to special projects

4. Describe the process you use to plan work:

Get engineering document ECR or WPE (outlines the scope of what doing)

If necessary, walk down with project manager and engineer.

Do bare bones document

Talk to FWS and team

Call scoping meeting, wald down if necessary, then discuss

Bring in other craft, how to do NCO/RCTs

Invite SME, waste, radcon, IH... drains DA

Come back get better draft

Schedule AJHA, same beople, walk down or pictures

ID hazards, go through changes

Findings AJHA and SME incorporate in work instructions

First formal review of work package

Incorporate comments

Final review of work package

HRB Package put in binder with AJHA

(b)(6) review prior to HRB, then change or go to HRB

Then ready to go

Pre-work review SOM agrees with work

Comments are provided through-out the process, team collaborates writing, but not decisions.

5. Show examples of current work you are planning:

Team will review packages.

6. What information (resources/inputs) do you use to plan of the work?:

People resources: Workers, SMEs

Documents: Past packages, Engineering documents, drawings

Rad hazard screen/AMW, incorporate RWP, Procedures.

7. How do you determine whether a radiological work planner needs to be included in the planning?

Radiological work planner/engineer creates screening form.

Everytime involve the radiological work planners, include

Exception? MWT – shop – remove window fab cover. No MWT in plant that he has done.

8. Who do you contact in the radiological organization when you need a work planner?

Radiological work planner (b)(6)

9. Describe the process for incorporating the information from the radiological work planner into the work package.

Person with comments provides by e-mail or hard copy. Save input and make the changes to the package.

Comment boxes in AJHA system, AMW attached forms, screening form RWP request. Goes to RWP preparer for the RWP.

10. Show examples from work in progress.

Vacuum chemical residue from floor 232A and scaffolding

Verify pencil tanks drained and cupons – mostly plan with pictures since tanks are in ARA (received WPE for this work).

11. How do you determine if planning is needed?

I would have to refer to the procedure. I have not had any no planning required. MWT require some planning, get drawings from the engineer.

12. What information/inputs/resources do you use to determine if planning is needed?

I would refer to thje procedure, need to see scope of work.

13. How do you determine if HRB is needed?

Use check list on JCS. Straight forward..

14. What information/resources/inputs do you use to determine an HRB is or is not required?

See above.

15. What is the planning process when a change to the work package is needed?

FWS comes to planner. Direct change made when work needed to be done out of sequence, 1 month ago, WCN was done (last one) found valves incorrectly identified on the drawing. WCN – if we came across a pipe not in accordance with engineering drawings.

230AB conveyor removal – not one of my packages

Yesterday did direct change (on “havend” permission)

DA makes decision on approving changes

16. Show examples currently in planning:

Team will review packages.

17. What work planning meetings do you attend/call?

Monday morning 10:30 270, room 25 have weekley meeting with project manager, planners, engineering manager. Schedule planning meetings, scoping meetings, AJHA sessions.

18. What is your schedule of meetings for the next two weeks?

See Lead planners for schedules.

Work Planner Interview Questions:

Name: Work Planner (b)(6)

1. Describe your relevant work experience. Total Years: (b)(6) Years as a Planner (b)(6)

(b)(6)

Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: (b)(6)

(b)(6) Years at PFP (b)(6) as Work Planner PFP (b)(6)

2. Describe your education/Training/Qualifications for being assigned as a work planner:

Learning AJHA (tailored to facilities) – first auto system used - and JCS system

HGET/ RAD worker II

Training – had PFP training modules (orientation...)

3. How is the work at PFP divided among the 26 work planners at PFP?

Supports specific project manager. 2004, did glove boxes A-labs

HC-17 DC, P, SSB; RMC lines now.

4. Describe the process you use to plan work:

Conducted walk down (no record) with project manager and PIC

Work with engineer who provides FMP/ECR (provides detail of work)

Draft a set of instructions

Plan another walk down with team (recorded in AJHA with attendance roster) (scope out hazards and controls)

Schedule AJHA (also with SMEs)

Complete AJHA by SMEs (have to sign off)

Complete AJHA task controls and incorporate them into the work instruction

Finalize the work instruction, place it into JCS, get approvals
Package sent to FWS who provides it to the work team for review.
Sometimes set down together to get review, do a mock HRB
May have HRB after all approvals are done in the JCS system
Follow-up, may need to make changes based on HRB
Send to Ops for scheduling the work.

5. Show examples of current work you are planning:

Team will review packages.

6. What information (resources/inputs) do you use to plan of the work?:

Craft people, WPE or FMP (engineering documents), drawings/sketches/tables/photos/MSDSs
Survey data/NDA data

7. How do you determine whether a radiological work planner needs to be included in the planning?

Radiological system breach needs rad work screening. Medium high risk requires an AMW.
Work on 145A and 146, remove electrical conduit, radiological work planner I, just got approval for the task (2Z-10-04831)

8. Who do you contact in the radiological organization when you need a work planner?

Gave us a list. Planner went through list of who used to support (no longer working at PFP, and the (b)(6) radiological work planners (b)(6) that support (b)(6) now.

9. Describe the process for incorporating the information from the radiological work planner into the work package.

Mostly from AJHA, sometimes from AMW (part of AJHA system)

10. Show examples from work in progress.

Conduit package 2Z-10-04831 (rooms 145A and 146)
Hood/glove box size reduction room 149 done in containment, placed in standard waste boxes
A-Labs 2Z-10-04008

Room 172 (chop shop) 2Z-10-5648 (tent design was in another package and ventilation design was via a minor work ticket (CHPRC MWT form filled out, once closed goes with... 270Z....) hung in place with area RBA.

Tools "worked with team and radcon"

The tent enclosure: hung plastic, NCOs and RCT design.

Ventilation, engineer was a contracted engineer who supports the ventilation design authority.

Used 3000 CFM exhausters in parallel.

11. How do you determine if planning is needed?

Answered by example, MWT-2Z-10-172 (17 inch vacuum system for air sampler)

MWT-2Z-10-180 fabrication of ventilation – (Env. Nuc Safety)

MWT for tent ventilation installation. (done through procedure without being in – tent installation?)

12. What information/inputs/resources do you use to determine if planning is needed?

No RA/CA/No RWP (only an RBA). "Procedure"

13. How do you determine if HRB is needed?

There is a check list to fill out.

14. What information/resources/inputs do you use to determine an HRB is or is not required?

It is always the rad questions that get [to HRB required].

15. What is the planning process when a change to the work package is needed?

For chop shop, made a direct change to cut glove box into larger pieces vice smaller pieces.

Added a few more steps. Inside of glove box – PBS. It was not loaded out, but put out through use of lift tables, 1 piece per table and placed into standard waste box in another room. "It was not a scope change."

"re-evaluate training to inspect further core methods" PIC/Radcon duty manager direction.

Added precaution limitation section 4 (due to OA finding). Done by direct change pen and ink.

FWS/Quarterback/Radcon – cutting bungies – safety, nuc safety, DA [The DA says who is involved in concurrence of the direct change] HRB/Ops – it is explained on work record.

16. Show examples currently in planning:

Team will review packages.

17. What work planning meetings do you attend/call?

Project manager / FWS schedule work scope meetings. Last week walk down to look at glove boxes 17 DCP. Next week, team schedule FWS [area is CA/RA].
Schedule AJHA.

18. What is your schedule of meetings for the next two weeks?

Team will get overall schedule from PODs.

Work Planner Interview Questions:

Name: __ Work Planner (b)(6) __

1. Describe your relevant work experience. Total Years (b)(6) Years as a Planner (b)(6)

(b)(6)

(b)(6) Years in Nuclear Work: [] Years in D&D of nuclear facilities: (b)(6)
Years at PFP ?_ as Work Planner PFP ?_

2. Describe your education/Training/Qualifications for being assigned as a work planner:

(b)(6) required reading, trial period – do a couple of work packages, Rad worker II.

3. How is the work at PFP divided among the 26 work planners at PFP?

“ECP or selected sub” This planner supports predominantly maintenance packages and temporary power/waste routes --- balance of plant construction contracts

4. Describe the process you use to plan work:

Get a good definition of the scope of work from the project manager, statement of work. FMP from engineer

Draft instruction.

Schedule AJHA and go from there. (invite radiological work planner [] who does (b)(6) construction).

5. Show examples of current work you are planning:

2Z-10-06681 (North substation trailer)

Lately working D&D waste routes – initial, working on FMP.

6. What information (resources/inputs) do you use to plan of the work?:

Statement of work/FMP, from there go to SME [industrial safety, industrial hygiene, system engineer/design authority, technical authority, SWO, Nuclear safety, work team]. (Plant forces work review, plant, EPC, outside contractors). South electrical, don't have work team yet.

7. How do you determine whether a radiological work planner needs to be included in the planning?

I don't arbitrarily invite them. If have draft instructions...

Non-rad work 2Z-5858 -- stairwell B extension.

8. Who do you contact in the radiological organization when you need a work planner?

2Z-10-01333 PRF widening door, WCN in package, huge work scope (Rad planner ^(b)₍₆₎) For most of work, Rad work planner or the RCT support person for the planners.

9. Describe the process for incorporating the information from the radiological work planner into the work package.

Rad risk screening form, standard verbage in RWP, CAMs, where to set.

High or medium risk have ALARA Management worksheet, pull up from there and AJHA. May get e-mail from rad work planner or a mark up of a paper copy of the work instruction. Then go back for a final look.

10. Show examples from work in progress.

Team will review work packages.

11. How do you determine if planning is needed?

No Minor work tickets in the last year. Never have been able to determine when no planning is required. I go to someone else (the two lead planners).

12. What information/inputs/resources do you use to determine if planning is needed?

Goes to the lead planners if there is a question.

13. How do you determine if HRB is needed?

Run through the check list. Example was 2Z-09-5971, chiller construction, critical lifts. Involved 3 trailer mounted chillers. HRB was good. The project manager pointed out things about the lifts.

14. What information/resources/inputs do you use to determine an HRB is or is not required?

Go through check list.

15. What is the planning process when a change to the work package is needed?

PRF widen 3 doors, dropped to widen only one door. Revised FMP triggered WCN. Decided specific boxes would be decontaminated and demolished in place. The exact same process is used for the work planning. (D&D)/Project manager or maintenance manager.

Direct change. Leave it to the planner, single line, I'll make a direct change. Anytime scope change..., if bring it to me. FWS does not have to bring it to me per 12115.

16. Show examples currently in planning:

Team will review packages.

17. What work planning meetings do you attend/call?

Schedule AJHA, project scheduling meetings, walk downs: scoping walk downs with engineer project manager (that may or may not involve the planner – not required).

Nut shell – AJHA walk downs. If complex, walk down with work team.

18. What is your schedule of meetings for the next two weeks?

Team will get overall schedule from PODs.

Work Planner Interview Questions:

Name: Work Planner (b)(6)

1. Describe your relevant work experience. Total Years: (b)(6) Years as a Planner (b)(6)

(b)(6)

PPF planner (b)(6)

Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: (b)(6)

Years at PFP (b)(6) as Work Planner PFP (b)(6)

2. Describe your education/Training/Qualifications for being assigned as a work planner:

(b)(6)

Has taken classes – HGET/Berillium/ Mask fit – AIHA, JCS, Rad Worker II...

(b)(6)

3. How is the work at PFP divided among the 26 work planners at PFP?

Mostly mechanical – process (room 152 structural wall removal, pencil tanks PRF, hood room 159, 1&2; A-Labs. Has done 5 electrical packages (cold and dark – isolation packages).

4. Describe the process you use to plan work:

The project manager gives the task and who the field work supervisor is. Talk with the field work supervisor, what they want to do. Schedule a walk down myself, plus pictures. Pull similar packages that can use the package structure. Schedule a scoping walk down (to determine methods for accomplishing task) with craft, SMEs, including rad-con, Ventilation DA.... See what draft vision (20-25%) major task methods, cut in glov-box, use of B-Box (engineered ventilation), disassemble.... If have ops will get it 2 days in advance, come up with more, don't get in advance... Scoping walk down get buy in on how the job will be done. RCS RCT lead approves packages, e-mail SMEs heads up on AJHA, number need...

Schedule AJHA, include RCTs doing work.

Prior to AJHA (or in parallel), contact radcon for RWP, AMW, rad screening, and contact SWO for waste checklist, so the AJHA can concentrate on non-radiological hazards.

The radiological work planner completes AMW, RWP request, when the package is almost complete and sends to RWP preparer for the RWP.

Line work planner puts in what was discussed in AJHA, flags the appropriate SME, SME puts the controls in the AJHA.

Line work planner incorporates controls from the AJHA into the work package.

5. Show examples of current work you are planning:

Team will look at packages later.

6. What information (resources/inputs) do you use to plan of the work?:

Input from the SMEs, ERC, WPE, work package templates.

7. How do you determine whether a radiological work planner needs to be included in the planning?

[Radiological work planners are] undermanned. If it is inside the building they are included. The exception is shop work

8. Who do you contact in the radiological organization when you need a work planner?

Rad work planner

(b)
(6)

9. Describe the process for incorporating the information from the radiological work planner into the work package.

The planner showed the cut and paste of template.

Look at previous jobs.

Radiological work planner will identify the requirements.

Field work supervisor and RCT will determine where ARA arrows are going to be.

10. Show examples from work in progress.

Team will review work packages.

11. How do you determine if planning is needed?

HRB screening form, when do validation (skill of craft or not). Minor work tickets for shop work do not require planning.

12. What information/inputs/resources do you use to determine if planning is needed?

See above.

13. How do you determine if HRB is needed?

Use the check list.

14. What information/resources/inputs do you use to determine an HRB is or is not required?

See above.

15. What is the planning process when a change to the work package is needed?

Discussed example. Cleaned out and removed hood 11, a filter was discovered. Had to make a change.

16. Show examples currently in planning:

Team will review packages.

17. What work planning meetings do you attend/call?

AJHA, scoping walk downs... see above answers.

18. What is your schedule of meetings for the next two weeks?

Team will get overall schedule from PODs.

Work Planner Interview Questions:

Name: ___ Line Work Planner (b)(6)

1. Describe your relevant work experience. Total Years: (b)(6) Years as a Planner (b)(6)

(b)(6)

Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: (b)(6)
Years at PFP: (b)(6) Years as Work Planner PFP (b)(6)

2. Describe your education/Training/Qualifications for being assigned as a work planner:

Met requirements for # of years experience in planning (OJT), already a (b)(6) work planner.
Did the required 3 work packages under a qualified work planner.

3. How is the work at PFP divided among the 26 work planners at PFP?

I don't know. I work for (b)(6)

4. Describe the process you use to plan work:

The project manager and engineer or Design Authority will get me and we will do a walk down of the area. This gives me a pretty good idea on what basically they want to do. I put together a straw man procedure (an outline with no how to in it). [Utility disconnects, external, internal removals, decon, fixative...]. 166 is a big package that is complex, 4 work packages being developed. Have planning meetings (scope input), Have scoping walk downs with craft and SMEs 18-19 people. 30-40 people for AJHA. Draft work instructions using ECR/WPE or FMP (prior). Bounce to project manager. Get working copy of draft procedure. Schedule AJHA. May have table top with pictures or another walk down. Went through procedure comments then AJHA. Hazard screening is done. After AJHA meeting, ask SME for AJHA input. Put together a final copy. Send out for approval (18-19 SMEs), before and after AJHA approval (SMEs verify their input into the work package). Goes to FWS after approval [of AJHA input] (their call). FWS gives to craft (NCOs) look at Workability walk down.

166 did 2 more walk downs to nail down completely.

5. Show examples of current work you are planning:

166 draft

6. What information (resources/inputs) do you use to plan of the work?:

Look at history from DA or ask around. Between visual looking at it and ECR, bounce off SMEs.

7. How do you determine whether a radiological work planner needs to be included in the planning?

I have yet to do one that is not. Mine except electrical, is HRB required.

8. Who do you contact in the radiological organization when you need a work planner?

(b)(6) (b)(6) (RCS) is (b)(6) rad work planner. (b)(6) calls or sends an e-mail meeting invitation.

9. Describe the process for incorporating the information from the radiological work planner into the work package.

After the scoping AJHA, the radiological work planner completes the rad screening form and ALARA management worksheet which they send to me. The "To be incorporated in work instructions" is marked. Example, room 144, nine hoods, 3 packages 4/4/1

10. Show examples from work in progress.

166 draft: Chemicals in glove bag or sleeve, special PPE, 6.3 Utility disconnects, WARNING, controls, all the controls apply to _____ to _____.

11. How do you determine if planning is needed?

Everything I get is planning required.

12. What information/inputs/resources do you use to determine if planning is needed?

Everything I get is planning required.

13. How do you determine if HRB is needed?

There is a check list, if yes, it is automatically HRB if high radiological risk.

14. What information/resources/inputs do you use to determine an HRB is or is not required?

Look at walk down, ALARA screening and process knowledge.

15. What is the planning process when a change to the work package is needed?

Minor change or major change? Very minor change would be a change in sequence, get ahold of Design Authority (DA). A direct change is made (pen and ink), put a note in the these packages, bounce off (always field work supervisor, DA, USQ), nobody else or max.

It is the DAs call on who needs to sign off on it. Shift manager has to sign direct changes.

Minor is pen and ink.

WCN, work change notice is for scope changes only, unless the DA says it needs to be a WCN. Field Work Supervisor does not have to go to me for a direct change. Direct changes are not changed in the JCS system. Pen and ink to package.

Nibbler to circular saw is a direct change, requiring field work supervisor, USQ and engineer/DA. Not a big deal. We typically do not tell them what tool to use. Must say when can't use a particular tool.

16. Show examples currently in planning:

166/ just started – 522 glove box, 169 HA-40F glove box removal.

17. What work planning meetings do you attend/call?

Scoping walk downs to AJHA.

18. What is your schedule of meetings for the next two weeks?

Team will get coordinated schedule.

Work Planner Interview Questions:

Name: __ Line Work Planner (b)(6) __

1. Describe your relevant work experience. Total Years: [] Years as a Planner (b)(6) (b)(6)

(b)(6)

Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: (b)(6)
Years at PFP: (b)(6) Years as Work Planner PFP: (b)(6)

2. Describe your education/Training/Qualifications for being assigned as a work planner:

(b)(6)

3. How is the work at PFP divided among the 26 work planners at PFP?

I am (b)(6)

4. Describe the process you use to plan work:

The project manager has a schedule to meet with the field work supervisors, possibly the lead engineer, to perform a walk down. If engineer prepares documents, I get that input. May have a planning walk down with the craft/SMEs. Then I draft the work instruction with method (glove bag, rigging, lift tables, sequence) sequence. Go through and walk it down, then get AJHA. May or may not walk down for AJHA (if change). Go through AJHA, ID main controls, input provided, may update graft work package, send it out for review/approval of AJHA. AJHA out for approval. Pick out the controls and resolve comments on draft work instruction. Send package for final review and approval. Get bulk of comments from AJHA, but it varies.

5. Show examples of current work you are planning:

Team will review packages latter.

6. What information (resources/inputs) do you use to plan of the work?:

Engineers, workers, research drawings, research materials. 235B glove box furnaces boiled liquids in, called person. 232Z had ceiling of fire bricks- researched old drawings.

7. How do you determine whether a radiological work planner needs to be included in the planning?

I let them opt out. For sure if it is in a zone. Everything I do is radiological. On outside work, I still ask, they can write themselves out.

8. Who do you contact in the radiological organization when you need a work planner?

I go to the radiological work planner who is assigned to the project manager for the work I am doing.

9. Describe the process for incorporating the information from the radiological work planner into the work package.

The radiological work planner reviews and gives me comments. I do my same work over and over again, so usually OK....., or not.

10. Show examples from work in progress.

Team will review packages.

11. How do you determine if planning is needed?

Only fab work is no planning required – Minor work ticket) All inside PFP is planned.

12. What information/inputs/resources do you use to determine if planning is needed?

Type of work for me have not run into situation of no planning except simple fabrications.

13. How do you determine if HRB is needed?

Go through check list – straight forward.

14. What information/resources/inputs do you use to determine an HRB is or is not required?

See above. At the HRB ask a lot of questions to ensure workers and supervisors know.

15. What is the planning process when a change to the work package is needed?

The planner answered by discussing a current project that went through the HRB and then discussed how a tweek to the instructions required HRB chairperson review in addition to the USQ, DA and FWS.

Planner discussed hazards of ASPA gel work

DA conservative on the air pressure allowed. Went higher – “airless system”, DA responsible to make final decision on who signs off on the change, HRB chairman had to review.

235B drill wall, structural electrical work, had radcon guy sign off on change.

16. Show examples currently in planning:

See above.

17. What work planning meetings do you attend/call?

AJHA, planning meetings, weekly status meeting with project manager.

18. What is your schedule of meetings for the next two weeks?

Team will look at coordinated schedule.

Work Planner Interview Questions:

Name: (b)(6)

1. Describe your relevant work experience. Total Years: (b)(6) Years as a Planner (b)(6)

(b)(6) at PFP

(b)(6)

Years in Nuclear Work: (b)(6) Years in D&D of nuclear facilities: (b)(6)

Years at PFP: (b)(6) Years as Work Planner PFP (b)(6)

2. Describe your education/Training/Qualifications for being assigned as a work planner:

There is a qualification card

RWII

172705 Effective Work Planning – down town training

3. How is the work at PFP divided among the 26 work planners at PFP?

Matrixed to a project manager. 242-Z, "HUFF planning", moving to C-Line. Project Team has NCOs, fitters, electrical and mechanical engineers.

4. Describe the process you use to plan work:

Project manager gives me a job.

Get together [planner, lead craft, FWS, project manager] and perform a scoping meeting. The lead craft is the craft doing the bulk of the work. A scoping walk down is performed.

Engineering will provide an FMP or WPE (basic outline of work).

Planner puts together a basic rough draft of the work package.

Schedule the AJHA (includes SME). Sometimes SME knows what's coming up. Walk it down, discuss tools/ controls.

Take the results of the AJHA for the SME to add controls in task instruction.

High level review is done by FWS/Project Manager/D&D Manager – add their comments

Put out for full team review

I get comments when it is time to sign off package. [Believe it is because they are too busy to do it up front].

Resolve comments, goes to approval.

Team can change after approval of package and they can stop work.

The lead line work planner expressed frustration about planned work being stopped because of team changes. "Plan the work, work the plan."

Actual field work team gets 1-2 chances to review, teams change.

What has gotten better: AJHA used to be scoping meeting. Team approach has improved the process.

Example of bad experience: Asked a rad engineer, refused to give view point because an RCT did not look at it, RCT looked at it, then rad engineer indicated that particular RCT did not know anything.

5. Show examples of current work you are planning:

Team will review packages at a later date.

6. What information (resources/inputs) do you use to plan of the work?:

People resources: engineering, experience, lessons learned, SMEs, Crafts, previous work packages. Can't always take like for like. The way we did things yesterday, is not the way we can do things today. Hazards may be different.

7. How do you determine whether a radiological work planner needs to be included in the planning?

If the work needs an RWP, or I need to ACE into the area. I will see the radiological engineer and RCTs until I am shown that I don't need them.

8. Who do you contact in the radiological organization when you need a work planner?

Matrixed to Project Managers. It used to be (b)(6) now it is (b)(6) For 227 glove box, worked with (b)(6)

9. Describe the process for incorporating the information from the radiological work planner into the work package.

[Radiological Control?] Develop RWP request and preliminary radiological hazard analysis. For high risk work, prepare an AMW. No information to pull from RWP, except RWP number. No instructions for screening form. AMW has several fields.

9 out of 10 times the craft will tell you they want a glove bag.

227S had sketch of the containment in the package. Used B-boxes at Rocky Flats. [Questions on the use of ventilation indicated the line planner was not aware of the limitations on the use of ventilation for controlling airborne radioactivity.]

Line planner talked about RWP and discussed us of ETGS, Invisablue – fixatives for controlling airborne radioactivity.

10. Show examples from work in progress.

Team will review packages.

11. How do you determine if planning is needed?

“Here everything needs planning” [Maintenance procedures] were planned at one time. It is TSR type of work.

12. What information/inputs/resources do you use to determine if planning is needed?

Until last year, could not use minor work tickets (MWT). Started using MWT to get work done. It does not require [planning]. New iteration, MWT will go away. 12115 work control manual says [MWT] is for repetitive work. It is being re-written. It will require rewrite annually. Has long and short form.

13. How do you determine if HRB is needed?

There is criteria in the procedure.

14. What information/resources/inputs do you use to determine an HRB is or is not required?

For 242Z, everything is high risk rad work.

For 227, may not require enhanced work planning for ALARA, would go to the radiological engineer to get input.

Line work planner indicated the HRB does not provide a useful process, but does it to support management. Does not see it finding radiological planning problems.

15. What is the planning process when a change to the work package is needed?

Procedure 12115 has the criteria in it.

Editorial changes are done with pen and ink with minimum number of signatures.

Direct change (also pen and ink) if it within the bounds [of the criteria in the procedure], has a few more eye balls looking at it. Field work supervisor, Design Authority, SOM, Nuc safety required, some have IH/TS/Radcon, if needed. The design authority (engineering group

designated) or D&D manager decide who needs to sign for direct changes. We are getting away from design authorities and are going to responsible managers. Formal changes require revision to the work package.

16. Show examples currently in planning:

227S revamp. 227T reorg.

17. What work planning meetings do you attend/call?

Project managers schedule the scoping meetings. Planner schedules AJHAs, and attends "status meetings".

18. What is your schedule of meetings for the next two weeks?

Team will get an overall schedule.

Lead Radiological Control Technician Interview Questions:

Name: _____ PERT Team Assigned: _____

1. Relevant work experience: Total Years: _____ Years at PFP: _____

Years in D&D of nuc facilities: _____ Years as RCT: _____ Years as Lead RCT: _____

2. Describe your education/training/qualifications for being assigned as Lead RCT for PFP:

3. How is the radiological work on your PERT team controlled? Is there a difference between regular dayshift controls and overtime controls?

4. Describe if, when and how you get involved in the work planning process.

5. What information (resources, inputs) do you use when planning or evaluating radiological work controls?
6. Have you ever modified work plans (or had them changed) in the field due to inadequate or incomplete work planning? If so, will you provide examples?
7. Are work packages planned to the extent that the entire team is clearly aware of and implements radiological controls?
8. How are work packages written (e.g., in a manner where radiological controls are clearly specified, or are work teams given flexibility in determining radiological controls in the field)?

9. In situations where work planning teams are given flexibility in work package instructions, what process is used for determining the radiological controls for the work (containment selection, engineered ventilation, PPE, respiratory protection, decon/work practices/radiological surveys)?

10. What work package problems have you encountered at PFP?

11. When a containment is prescribed as a radiological control, what are your responsibilities for containment design, certification, use, removal, etc? Are these items included in the work package?

12. If radiological ventilation is prescribed, are the controls in the work package adequate to ensure the control is functioning as designed?

13. Under what conditions would you suspend or stop work? Have you done so? If so, will you provide examples?

14. What planning meetings do you attend?

15. Is there anything else you'd like to tell us, or anything else we should have asked?

Lead Radiological Control Technician Interview Questions:

(b)(6) Name: Lead RCT [] PERT Team Assigned: []

1. Relevant work experience: Total Years: (b)(6) Years at PFP (b)(6)

(b)(6) Years in D&D of nuc facilities: [] (PFP) Years as RCT: [] Years as Lead RCT: (b)(6) (b)(6)

2. Describe your education/training/qualifications for being assigned as Lead RCT for PFP:

(b)(6)

3. How is the radiological work on your PERT team controlled? Is there a difference between regular dayshift controls and overtime controls?

Work is controlled through work packages and/or procedures w/RWPs. Most packages have flexibility in how the work is done, e.g. cut points, containment design and whether or not containments are required for cuts.

As an example removal and blanking of flanges on E-4 >400 cfm used "B-box" w/work package change.

The interviewee stated that there could be differences between day and swing shift.

4. Describe if, when and how you get involved in the work planning process.

The work planners give a rough draft to the team. The team then reviews and adds ideas that are reviewed by the radiological engineer for inclusion in the work document. There may be discussion with the radiological engineer to get buy off.

5. What information (resources, inputs) do you use when planning or evaluating radiological work controls?

Procedures, knowledge, skill of the craft. Primarily past practices, experience and common sense.

The interviewee discussed an example of recent changes in containment certification and smoke testing. This change involved a stop of work to work through and ended up with restoring the smoke test.

The interviewee stated that (b)(6) encourages a "bare minimum philosophy" when it comes to radiological controls.

6. Have you ever modified work plans (or had them changed) in the field due to inadequate or incomplete work planning? If so, will you provide examples?

The interviewee stated that this has happened. Sometimes (b)(6) is not very receptive to RadCon identifying change needs but they generally make the needed changes. "RadCon gets a lot of flack, but changes get done, if a strong person (pushes)."

7. Are work packages planned to the extent that the entire team is clearly aware of and implements radiological controls?

For the work packages this lead has been on this is true. The interviewee has worked other packages (b)(6) that are "dog crap." For example, the interviewee had a step-by-step package in (b)(6) that required them to do the job in a less than optimal manner.

Some packages are written and just handed over. These are often older, pre-planned packages.

8. How are work packages written (e.g., in a manner where radiological controls are clearly specified, or are work teams given flexibility in determining radiological controls in the field)?

9. In situations where work planning teams are given flexibility in work package instructions, what process is used for determining the radiological controls for the work (containment selection, engineered ventilation, PPE, respiratory protection, decon/work practices/radiological surveys)?

Most packages have been written to provide flexibility. Examples of flexibility include length of cut, cut points, type/containment design. These are left to the option of the work team in the field.

10. What work package problems have you encountered at PFP?

There have been some problem packages. An example included changing from containment to "B-Box". The interviewee stated that he feels trapped in "step-by-step" mode which slow (b)(6) down. In some cases (b)(6) wanted to work steps in different order.

(b)(6)

11. When a containment is prescribed as a radiological control, what are your responsibilities for containment design, certification, use, removal, etc? Are these items included in the work package?

RCTs smoke test the containment as part of ensuring a strong tight package, that is right for the job. The RCT also checks the arrangement, padding sharps and completes the containment inspection checklist.

This helps ensure and validate that the containment is made and installed as designed, including adequate negative ventilation.

RCTs used to have a signature on the design form but now it is the RadCon supervisor, but RCT lead still has input.

12. If radiological ventilation is prescribed, are the controls in the work package adequate to ensure the control is functioning as designed?

The interviewee stated that a variety of ventilation sources were used. These included:

- Using 17 inch process vacuum for glove bags
- Using 80 cfm HEPA vacuums
- Using 40 cfm vacuums as spot vent for small cuts.

The interviewee did not recall if specific details have been included in work packages. This related to details such as speed setting on HEPA units with multiple speeds and if brand names were specified.

Under what conditions would you suspend or stop work? Have you done so? If so, will you provide examples?

(b)(6) Interviewee has not needed to "stop work." [redacted] noted that there have been some "knock down/drag outs" on some issues but those were resolved before going back to work.

The interviewee stated that some feel that stop works have been overturned for production reasons or have been rushed to get back to work "ram rodded."

The interviewee stated that under FH work was "slow and steady" under CHPRC work has been "fast and loose."

CHPRC is a "bare minimum" company.

13. What planning meetings do you attend?

AJHA, planning and package review meetings. Interviewee stated that the controls in the package are generic for example, "follow the RWP."

(b)(6) has not been involved with other meetings, specifically not involve in "in-process" or "post-job" ALARA review meetings.

14. Is there anything else you'd like to tell us, or anything else we should have asked?

Interviewee stated that he would like to see (b)(6)

(b)(6)

Lead Radiological Control Technician Interview Questions:

(b)(6) Name: Lead RCT [] PERT Team Assigned: (b)(6) []

(b)(6) 1. Relevant work experience: Total Years: [] Years at PFP: (b)(6) []

(b)(6) Years in D&D of nuc facilities: [] Years as RCT: (b)(6) [] Years as Lead RCT: (b)(6) []

2. Describe your education/training/qualifications for being assigned as Lead RCT for PFP:

Qualified RCT, RCT cycle training
Completed Lead board process, scoring and selection

3. How is the radiological work on your PERT team controlled? Is there a difference between regular dayshift controls and overtime controls?

RC duty makes RCT assignments, tries to keep same people on jobs.
Leads discuss controls with radiological engineers when needed and there are team walk downs.
Has discussed controls with radiological engineers

Controls should be the same on both regular and overtime.

4. Describe if, when and how you get involved in the work planning process.

Interviewee has been involved in craft walk downs for work planning, work package review through approval.

(b)(6) [] has provided input to the radiological engineers and helped w/FWS and AMW input, e.g. provided data.

5. What information (resources, inputs) do you use when planning or evaluating radiological work controls?

(b)(6) Interviewee discussed how [] has been involved similar to question 4, see question 4 response.

6. Have you ever modified work plans (or had them changed) in the field due to inadequate or incomplete work planning? If so, will you provide examples?

(b)(6)

The interviewee stated that [] has not been too involved in this activity.

In general, work stops, and has been assigned to other jobs that were working. This has occurred after RWP voids and work stops.

7. Are work packages planned to the extent that the entire team is clearly aware of and implements radiological controls?

In general the work packages this lead worked on have been good. Interviewee stated that [] would not work if they weren't.

(b)(6)

(b)(6)

The A-Labs team that [] has supported has been clear of controls and implemented them.

8. How are work packages written (e.g., in a manner where radiological controls are clearly specified, or are work teams given flexibility in determining radiological controls in the field)?

Most packages worked have had options for flexibility. Some packages after room 139 have been better, in the last couple of weeks.

Recently there have been more complaints about controls and increased production pressure.

9. In situations where work planning teams are given flexibility in work package instructions, what process is used for determining the radiological controls for the work (containment selection, engineered ventilation, PPE, respiratory protection, decon/work practices/radiological surveys)?

Most packages have been written to provide flexibility.

Examples of flexibility included the use of wet methods for horse tailing and seal out, which have been effective versus examples of wet methods to break systems open, which had more problems.

10. What work package problems have you encountered at PFP?

Packages that are ready have tended to be fine. There have been some problems with new work planners not taking time. In addition the addition of newer less experienced RCTs has been a concern. There has been no quality check of the effectiveness.

11. When a containment is prescribed as a radiological control, what are your responsibilities for containment design, certification, use, removal, etc? Are these items included in the work package?

- Operations brings the design and work scope.
- The RCT lead has provided input on the design considered the configuration, using the approval checklist.
- Initial inspections have been performed outside of the CA
- The bag the is installed and inspected
- RCTs complete the checklist and smoke test. (The interviewee noted that too many smoke test failures created a production problem with operations)

12. If radiological ventilation is prescribed, are the controls in the work package adequate to ensure the control is functioning as designed?

The interviewee stated:

- Using plant ventilation, Sylvan (DA) for this.
- Verify that the flow is in the right direction by smoke test
- For rooms, e.g. attachment 1, use smoke testing and/or a "dangleometer."
- For spot vent, ensure that the motor is running.

The interviewee did not recall if specific details have been included in work packages. This related to details such as speed setting on HEPA units with multiple speeds and if brand names were specified.

13. Under what conditions would you suspend or stop work? Have you done so? If so, will you provide examples?

Interviewee has not invoked "stop work."

(b)(6)

[redacted] stated that [redacted] would stop work if RWP void levels reached, or if it was a safety issue. [redacted] would also stop work if conditions prospectively had too much risk. (b)(6)

Operations have been different more of "if they can get away with it" take that path.

14. What planning meetings do you attend?

AJHA and meetings and Pre-Jobs

15. Is there anything else you'd like to tell us, or anything else we should have asked?

(b)(6)

Interviewee stated that [redacted] would like to get appropriate time to complete paperwork. There has been an frequent problem with (b)(6) making time for this. (b)(6) thought it was stupid to stop and do paperwork." This issue had to be resolved with senior line management after the (b)(6) announced not to worry about no time for survey reports.

(b)(6) is not sensitive to regulations (e.g. paperwork) and is ignorant of nuclear work such as PFP and has other priorities e.g. schedule and production.

Lead Radiological Control Technician Interview Questions:

(b)(6) Name: Lead RCT [] PERT Team Assigned: (b)(6)

1. Relevant work experience: Total Years: (b)(6) Years at PFP: (b)(6)

(b)(6) Years in D&D of nuc facilities: [] Years as RCT: [] Years as Lead RCT (b)(6) (b)(6)

2. Describe your education/training/qualifications for being assigned as Lead RCT for PFP:

Qualified basic RCT, RCT cycle training
(b)(6)

3. How is the radiological work on your PERT team controlled? Is there a difference between regular dayshift controls and overtime controls?

This has been done at the pre-job, controls are discussed, dress requirements (PPE).
The lead stated that the RWP is presented but there are no void levels for contamination only for readings on an air filter.

The lead talked about the RC mentor(s) role and to date that there had been minimal change from this.

Operations approach has been "dress to the max," which includes framtek and fresh air.

4. Describe if, when and how you get involved in the work planning process.

For the current work, by the time the lead got assigned, all the planning was done and there was no opportunity to make changes. The current crew includes [] RCTs about half of which were (b)(6) there during the planning.

The lead stated that operation does not appreciate the nature of HP work versus operations, examples include the time needed for work preparation, setup, post work surveys and completing required documentation.

5. What information (resources, inputs) do you use when planning or evaluating radiological work controls?

Interviewee stated that not much planning is part of this work but there is constant pressure (by operations) to downgrade controls and PPE, for example pushing to go to a single set of PPE and a PAPR hood for all work.

6. Have you ever modified work plans (or had them changed) in the field due to inadequate or incomplete work planning? If so, will you provide examples?

The lead discussed an example where (b)(6)

(b)(6)

The lead described a second example where (b)(6)

(b)(6)

7. Are work packages planned to the extent that the entire team is clearly aware of and implements radiological controls?

In general the work packages this lead worked on have been very vague and did not provide detail. A package for glove box size reduction provided no RCT instruction and minimal requirements, e.g. did not call for radiological surveys, did not specify locations to cut (did not consider level of contamination or end size e.g. less than adequate hazard analysis). In practice determining the cut location and number of cuts was left to the field/craft.

8. How are work packages written (e.g., in a manner where radiological controls are clearly specified, or are work teams given flexibility in determining radiological controls in the field)?

Most packages worked have had options for flexibility. This is compounded by operators from ATG who have more of a "get it done" mentality as opposed to PRF (GB 27) which provides more controls in their cuts.

The lead noted recent examples of attempting to use a circular saw to cut glove boxes, first with no controls, then with spot ventilation, and finally with a shroud but it was not the correct shroud for the tool. In each case airborne levels rose quickly and exceeded the RWP.

Operations refuses to agree to controls and use poor work practices. Examples include inadequate/inappropriate use of wet towels and throwing material into bags (as opposed to placing it).

9. In situations where work planning teams are given flexibility in work package instructions, what process is used for determining the radiological controls for the work (containment selection, engineered ventilation, PPE, respiratory protection, decon/work practices/radiological surveys)?

Most packages have been written to provide flexibility. Operations "pretty much" rule controls.

An example was given where (b)(6) refused to sign an RWP due to the change clarifying what PPE was required.

10. What work package problems have you encountered at PFP?

Many problems mostly involve lack of hazard controls, flexibility and operations lack of concern, (see previous responses).

11. When a containment is prescribed as a radiological control, what are your responsibilities for containment design, certification, use, removal, etc? Are these items included in the work package?

Currently containments are not routine at this activity. The lead discussed the process applied to inspect and certify containments.

12. If radiological ventilation is prescribed, are the controls in the work package adequate to ensure the control is functioning as designed?

The interviewee stated that ventilation controls are vague in the work package. Operations puts it where they want, if they use it.

The interviewee noted that in some cases the spot ventilation has been put in places such that it was working against the main tent ventilation.

13. Under what conditions would you suspend or stop work? Have you done so? If so, will you provide examples?

(b)(6) Interviewee stated that [] would stop work if it was a safety issue. However [] also stated that it (b)(6) would have no impact. Operations would push through and even HAMTC would fall in line with the company. (editorial note, lead appeared to have given up on the stop work as a valid process.)

14. What planning meetings do you attend?

Has attended none to date. Hopes to participate in the next chop shop planning but [] is not (b)(6) aware of any RadCon involvement in the new design

15. Is there anything else you'd like to tell us, or anything else we should have asked?

Interviewee stated (b)(6) not familiar with Z-06 Attachments 1 and 2 and did not understand the importance of the control.

The interviewee also noted that there has been an increase in contaminated instruments and that some have gotten to PNNL where they were discovered. (b)(6) felt that if instruments (RadCon) are being released to PNNL that it was likely that other contaminated items were also being released.

The interviewee stated that there is tremendous pressure to operate, push the limits to reach milestones and KPP. "Production"