



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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June 20, 2019

19-NWP-095

By certified mail

Brian T. Vance, Manager
Office of River Protection
United States Department of Energy
PO Box 450, MSIN: H6-60
Richland, Washington 99352

John R. Eschenberg, President
Washington River Protection Solutions, LLC
PO Box 850, MSIN: H3-21
Richland, Washington 99352

Re: Dangerous Waste Compliance Inspection on June 5, 2019 at the 222-S Laboratory,
Resource Conservation Recovery Act (RCRA) Site ID: WA7890008967,
NWP Compliance Index No.: 19:664

Dear Brian T. Vance and John R. Eschenberg:

Thank you for your staff's time during the 222-S Laboratory inspection on June 5, 2019. The Department of Ecology's (Ecology) compliance report of this inspection is enclosed. The report cites one area of non-compliance and no concerns.

Specific deficiencies or violations not listed in the enclosed compliance report do not relieve your facility from having to comply with all applicable regulations.

If you have questions or need further information, please contact me at (509) 372-7949 or jared.mathey@ecy.wa.gov.

Sincerely,

Jared Mathey
Dangerous Waste Compliance Inspector
Nuclear Waste Program

so
Enclosure

cc: See page 2

RECEIVED

JUN 25 2019

EDMC



Brian T. Vance and John R. Eschenberg
June 20, 2019
Page 2 of 2

19-NWP-095
222-S Laboratory
RCRA Site ID: WA7890008967
NWP Compliance Index No.: 19.664
Inspection Date: June 5, 2019

cc electronic w/enc:

Dave Bartus, EPA
Jack Boller, EPA
Dave Einan, EPA
Mary Beth Burandt, USDOE
Duane Carter, USDOE
Lori Huffman, USDOE
Christopher Kemp, USDOE
Tony McKarns, USDOE
Joe Sondag, USDOE
Cecil Swarens, USDOE
Bryan Trimmerger, USDOE
Allison Wright, USDOE
Jon Perry, MSA
Steve Szendre, MSA
Holly Bowers, WRPS
James Hamilton, WRPS
Jessica Joyner, WRPS
Eric Van Mason, WRPS
Jay Warwick, WRPS
ERWM Staff, YN

Ken Niles, ODOE
Shawna Berven, WDOH
John Martell, WDOH
Debra Alexander, Ecology
Phillip Buser, Ecology
Kathy Conaway, Ecology
Suzanne Dahl, Ecology
Jackson Davis, Ecology
Kelly Elsethagen, Ecology
Jared Mathey, Ecology
Mark Pakula, Ecology
John Price, Ecology
Alex Smith, Ecology
Ed Soto, Ecology
Environmental Portal
Hanford Facility Operating Record
MSA Correspondence Control
USDOE-ORP Correspondence Control
USDOE-RL Correspondence Control
WRPS Correspondence Control

cc w/enc:

Susan Leckband, HAB
Hanford Administrative Record
NWP Central File
NWP Compliance Index File: 19.664

cc w/o enc:

Matt Johnson, CTUIR
Jack Bell, NPT
Laurene Contreras, YN

**Washington Department of Ecology
Nuclear Waste Program
Compliance Report**

SITE: 222-S Dangerous and Mixed Waste Treatment, Storage, and Disposal (TSD) Unit
RCRA Site ID: WA7890008967
Inspection Date: June 5, 2019
Site Contacts: Jay Warwick, Washington River Protection Solution LLC (WRPS)
Joe Sondag, United States Department of Energy – Office of River Protection (USDOE-ORP)
Site Location: Hanford Site, 200 West Area
At This Site Since: 1951 **NAICS#:** 56221; 924110, 54171
Current Site Status: Large Quantity Generator

Ecology

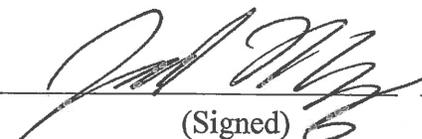
Lead Contact: Jared Mathey **Phone:** (509) 372-7949 **FAX:** (509) 372-7971

Other Representatives: Phillip Buser (Ecology Compliance Support)

Report Date: June 20, 2019

Index #: 19.664

Report By: Jared Mathey



(Signed) 6/20/2019
(Date)

Site Location

The Hanford Site was assigned a single United States Environmental Protection Agency (EPA) identification number, and is considered a single Resource Conservation and Recovery Act (RCRA) of 1976, as amended, facility even though the Hanford Site contains numerous processing areas spread over a large geographic area. The Hanford Site is a tract of land approximately 580 square miles and is located in Benton County, Washington. This site is divided into distinct Dangerous Waste Management Units (DWMUs) which are administratively organized into "unit groups." A unit group may contain only one DWMU or many; currently, there are 30 unit groups at the Hanford Site. Individual DWMUs make up a small portion of the Hanford Site. Additional descriptive information on the individual DWMUs is contained in unit group permit applications and in Parts III, V, and VI of the Hanford Facility RCRA Permit, Dangerous Waste Portion, WA7890008967, Revision 8C (hereafter referred to as the Permit).

Owner and Operator Information

According to the *Dangerous Waste Permit Application Part A Form, 222-S Dangerous and Mixed Waste TSD Unit*, Revision 12, dated September 29, 2008, (222-S Part A Form) USDOE is the owner and operator of the 222-S Dangerous and Mixed Waste Treatment, Storage, and Disposal (TSD) Unit. WRPS is contracted by the USDOE to co-operate the 222-S Dangerous and Mixed Waste TSD Unit. Another USDOE contractor, Wastren Advantage, Inc. (WAI) performs analytical services at the laboratory.

Facility Background

In 2018, the United States Department of Energy – Hanford Site reported as a Large Quantity Generator of hazardous waste on their Dangerous Waste Annual Report.

The 222-S Laboratory Complex is located in Hanford's 200 West Area. The 222-S Laboratory Complex began operation in 1951 and currently supports environmental clean-up work across the Hanford site. The 222-S Dangerous and Mixed Waste TSD Unit operates to Interim Status Facility Standards, Washington Administrative Code (WAC) 173-303-400(3), as referenced by the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion Revision 8C - Condition I.A, Effect of Permit.

The 222-S Dangerous and Mixed Waste TSD Unit Group includes the following Dangerous Waste Management Units:

- 219-S Waste Handling Facility.
- 222-S Dangerous and Mixed Waste Storage Area (DMWSA).
- Room 4-E Container Storage Area.
- Room 2-B Container Storage Area (northern portion of Room 2-B).

The 219-S Waste Handling Facility includes tank systems (Tanks TK-101, TK-102, TK-103, and TK-104, and the ancillary equipment), operating gallery, and sampling gallery. Tank TK-103 was taken out of service, drained, isolated, and rinsed. While tanks TK-101, TK-102, and TK-104 are used for treatment and storage. The maximum process design capacity for tank storage and treatment is 37,472 liters.

Note: Tank TK-201 is used to provide caustic solution (a product) for waste treatment within Tanks TK-101, TK-102, and TK-104. Mixed and/or dangerous waste is not treated, stored, or disposed of within Tank TK-201.

Containers containing dangerous and/or mixed waste are stored in the DMWSA, Room 4-E, and the northern portion of Room 2-B. The maximum process design capacity for container storage is 28,470 liters.

The 222-S Laboratory Complex has three 90-day accumulation areas (See Table 1) and approximately 161 satellite accumulation areas.

Location	Contractor	Facility	Operating Area
222-S Room 2-D	WRPS	222-S Laboratory Complex	200 West
HS-0065B			
222-SD Crane Pad			

Compliance Background

A description of the 222-S Dangerous and Mixed Waste TSD Unit compliance background between 2015 to 2017 is located in the compliance background section in Compliance Index #17.614, dated April 26, 2018.

The Washington Department of Ecology (Ecology) 222-S Dangerous and Mixed Waste TSD Unit compliance report (Compliance Index #: 17.614) identified four areas of non-compliance for the September 14, 2017, compliance inspection.

The following deficiencies were noted in the area of non-compliance:

- A container inside of the of Storage Area HS-0083B, designated with a D009 waste code, did not identify the major risk of Toxic.
- Inspection records for eye wash/safety shower and the 219-S Tank System were not completely filled out.
- The operating record for Container 0098842 in Storage Room 2B, did not include the applicable wastewater/non-wastewater category and a statement that the waste is subject to the applicable LDR treatment standards in 40 CFR 268.
- Requested designation records for pour additions to Tank TK101 were not furnished upon request when originally requested.

Ecology 222-S Dangerous and Mixed Waste TSD Unit compliance report (Compliance Index #: 18.648) identified two areas of non-compliance for the September 18, 2018, and October 11, 2018, compliance inspections.

The following deficiencies were noted in the area of non-compliance:

- In Room 4-E and Room 2-B, Ecology observed containers that were not properly labeled with the major risks associated with the waste inside of the containers.
- Reactive, non-cyanide, or sulfide bearing waste that was not treated was placed into a lab packed container in Room 4-E.

Inspection Summary

On June 5, 2019, Phillip Buser (Ecology Support Inspector) and I arrived at 2713S at the 222-S Complex to investigate a fire that occurred at the lab on Thursday, May 30, 2019. At approximately 8:30 a.m., we went into the building, signed in, and proceeded to Conference Room 131. We started the inspection by going through introductions. According to the attendance roster, the following WRPS and USDOE-ORP personnel were present for the in-briefing.

- Jay Warwick – WRPS, Inspection Coordinator.
- Bric Batchelder – Mission Support Alliance (MSA), Hanford Fire Department Battalion Chief.
- Adam Moldovan – MSA, Hanford Fire Department Deputy Chief.
- James Hamilton – WRPS, Production Operations Environmental Compliance Manager.
- Dan Hansen – WRPS, Manager of Organic Studies.
- Eric Van Mason – WRPS, Environmental Regulatory Interface Manager.

- Ken Chapin, WRPS, Environmental Specialist.
- Tony Scott – WRPS, Operations Manager.
- Jessica Joyner – WRPS, Environmental Manager.
- Robert De Jonghe – WRPS, Facility Operations Manager/Building Emergency Director.
- Beth Mata – WRPS, Event Investigator.
- Terry Rohrman – WRPS, Operations Support Specialist.
- John Prilucik – WRPS, Manager.
- Joe Sondag – USDOE-ORP, Environmental Compliance.
- Jacob Johnson – WRPS, Hazardous Material Controls Manager.
- Dave Moser – WRPS, 222-S Facility Manager.
- Rick Ennis – WRPS, Millwright Safety Representative.
- Cecil Swarens – USDOE-ORP, Facility Representative.

Mr. Warwick, WRPS, started with a safety briefing. He asked if we could ask questions of the Hanford Fire Department first, as they were on-call. I agreed. I asked Mr. Batchelder, Hanford Fire Department Fire Chief, if there is a report on the fire from the Hanford Fire Department. Mr. Batchelder said there is a fire investigation report that is currently underway and not completed yet. Mr. Moldovan, Hanford Fire Department Deputy Fire Chief, said there is an incident report for the fire drafted that could be requested. I made a request (See Attachment 1). I asked Mr. Batchelder and Mr. Moldovan if they could re-cap the Hanford Fire Department response. Mr. Batchelder said he was the actual Incident Commander for the event. He explained at 3:40 a.m. the fire alarm sounded at the 222-S Lab. The first response was two engines and one ambulance, as would normally be sent out for this type of alarm. Mr. Batchelder said the Hanford Fire Department was met outside by the Stationary Operating Engineer (David Lane). He was told there was smoke in Room 4-TUV and water on the floor in the hallway outside the Room 4-TUV. Mr. Batchelder said they made entry with three fire fighters in full Personal Protective Equipment (PPE) including Self-Contained Breathing Apparatus (SCBA). He said an instrument inside of room 4-TUV was still smoking, which they isolated by unplugging it. Mr. Batchelder said they applied no agents to put out the fire and secured the scene. He said the Hanford Fire Department remained until the fire investigation team arrived.

Mr. Moldovan said the fire was still under active investigation and asked if we enter room 4-TUV to not go past the taped off areas and, for accountability, sign the logbook. I said I had enough information for now about the initial fire department response and the two men left.

I asked to see the most current Building Emergency Plan for the 222-S Laboratory. Mr. Warwick showed me RPP-PLAN-61970, Revision 1, *Building Emergency Plan for the 222-S Laboratory Complex*, dated April 2019. I asked who was the Building Emergency Director on the day of the fire, Thursday, May 30, 2019. Mr. De Jonghe, WRPS, said he was the Building Emergency Director. I asked who was at the 222-S Lab at the time of the fire. Mr. De Jonghe said the Stationary Operating Engineer, David Lane and Health Physics Technician, John Betzsold.

I asked for the details of the fire. Ms. Mata, WRPS Event Investigator, showed me the one day summary report, which she explained was an event investigation requirement (See Attachment 2). I observed the one day summary report outlined the details of the incident. She explained tomorrow they would be issuing a four day summary report with updates on the incident. Mr. Hansen, WRPS lab manager, explained that the instruments in the laboratory are typically named to make it easier for staff to identify and said Scotty was the name of the instrument involved in the fire. He said the instrument was a vapor analysis machine that takes air samples of volatiles and furans using gas chromatography. Mr. Hansen said this was the same room as the last fire (August 9, 2018), but with a different instrument. He said the thermal unit caught fire in this incident. Mr. Hansen showed us a photo of what an intact vapor analysis machine looked like along with a photo of Scotty after the fire.

I asked the location of the nearest dangerous waste accumulation area in association with the fire and if it contained dangerous waste. Mr. Warwick brought up a layout of room 4-TUV. Mr. Hansen said in the northwest corner of the room, there was a Satellite Accumulation Area with liquid waste. He explained the fire occurred on the other side of the room in the center. I asked what waste codes were associated with the waste in the Satellite Accumulation Area. Mr. Warwick brought up information on the screen which showed the possible waste codes associated with the waste. I observed the following waste codes D001, D018, D019, D027, D028, D029, D035, D036, D038, D039, and D040. Mr. Van Mason, WRPS Environmental, said the waste was methanol and the information was from a pre-designation sample of waste that could be in that Satellite Accumulation Area. Mr. Johnson, WRPS Hazardous Material Manager, explained many of their procedures are in the process of being revised to account for the new dangerous waste rules. Mr. Hansen said there was no other dangerous waste inside the room. I asked how much of the ignitable waste (D001) was in the Satellite Accumulation Area at the time of the incident. Mr. Johnson said approximately three gallons.

I asked why the dangerous waste contingency plan was not implemented and who made the decision not to implement the plan. Mr. De Jonghe said he was awakened by a phone call around 3:44 a.m. and said he did not come to the scene until 6:10 a.m. He said when he arrived, the Stationary Operating Engineer, David Lane, updated him that the fire was extinguished. Mr. De Jonghe said he did not have time to implement the contingency plan as the fire was all taken care of when he arrived. I explained I was glad Ecology was notified of the incident. Ms. Joyner, WRPS Manager, said they did not notify Ecology. I explained I received an Environmental Report Tracking System notification of the fire and that somebody called the incident in to our Yakima Ecology office. Ms. Joyner said they were not aware of that and explained the Emergency Operations Center (EOC) must have notified Ecology.

I explained from what I have heard today and read in the one day summary report that Conditions 1, 2.b, and 3 were met and that the dangerous waste contingency plan should have been implemented. There was some general discussion of how this was possibly not a fire and that it did not take a person with training to unplug the instrument.

I explained that the Hanford Site is a large quantity generator and that this fire happened in a room with ignitable dangerous wastes. I then read and emphasized the below underlined parts of WAC 173-303-201(8)(a) and (b):

(a) The large quantity generator must have a contingency plan for the facility. The purpose of a contingency plan and emergency procedures is to lessen the potential impact on the public health and the environment due to any emergency event such as, but not limited to, a fire, natural disaster, explosion, or any unplanned sudden or nonsudden release of dangerous waste, hazardous substance or dangerous waste constituents to air, soil, surface water, or groundwater.

(b) A contingency plan must be developed to lessen the potential impacts of such emergency events, and the plan must be implemented immediately when such emergency events occur.

I said I would be citing the above regulation as an area of non-compliance and requested Ecology be sent a 15-day report for the fire incident. I said during my last inspection, I was told the Hanford Fire Department did not respond to the past fire. Ms. Joyner said the Hanford Fire Department did respond to the previous fire. I explained I reviewed my previous 222-S Laboratory compliance report prior to this visit and explained that was not what was told to me during that inspection and according to my written report.

Excerpt from December 20, 2018, 222-S Dangerous and Mixed Waste TSD Unit Compliance Report #18.648:

"I asked if they have implemented their contingency plan in the last year. Mr. Voogd said no. He explained the 222-S Lab did have an electrical fire, but did not need time urgent response as the fire was put out right away with staff using a fire extinguisher. Mr. Voogd said the fire was caused by a gas chromatograph that recently was installed prior to the fire."

I observed the following from an occurrence report sent to Ecology around August 20, 2018:

HQ Summary:

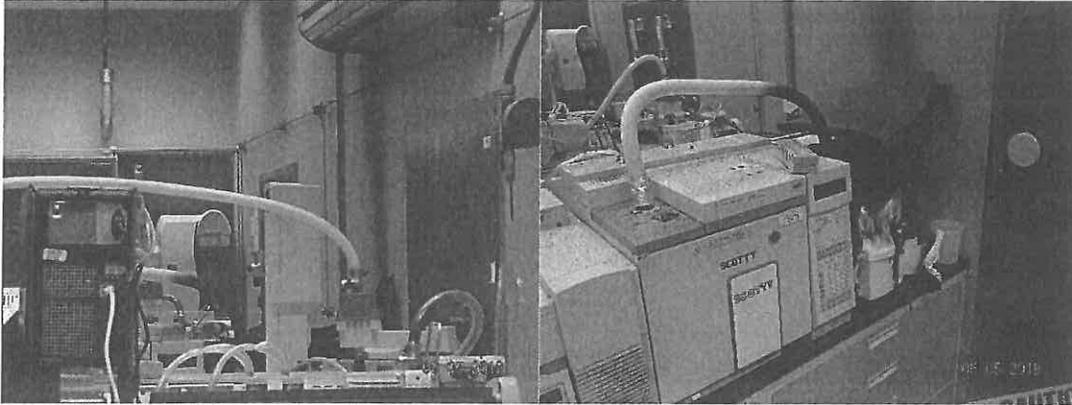
On August 9, 2018, the Hanford Fire Department (HFD) was dispatched to the 222-S Laboratory as a result of localized electrical fire identified by plant personnel originating from analytical equipment located in room 4-TUV inside the laboratory. Plant personnel initiated the facility fire alarm system by actuating a pull box and calling 911. One individual who observed the fire utilized a fire extinguisher staged nearby and extinguished the fire prior to evacuating. HFD responded within minutes and entered room 4-TUV and confirmed the fire was extinguished. Room 4-TUV is a posted radiological buffer area for contamination control. Firefighters received radiological surveys by plant Health Physics Technicians and exited the 222-S Laboratory. No radiological contamination was identified in the area of the fire or on the Firefighters. Approximately 250 employees evacuated the laboratory facilities and all personnel were accounted for. Two individuals were transported to Kadlec Regional Medical Center for

respiratory irritation. Both individuals were evaluated and returned to with no restrictions. The affected piece of analytical equipment and equipment with similar features were de-energized and a red arrow was issued to ensure that the equipment remains de-energized until appropriate corrective actions have been taken.

Ms. Joyner said WRPS would discuss providing a 15-day report during our field inspection and talk with us about it when we returned. Ms. Joyner asked if I had any other concerns for them to consider. I explained I was concerned that the communication with the 222S Building Emergency Director during the incident appeared inadequate during the incident, as he did not get a full debrief of the situation until he arrived almost two and half hours later. I explained the Building Emergency Director should have been more involved initially in the emergency situation and made decisions on implementation of the contingency plan from the information known at that time.

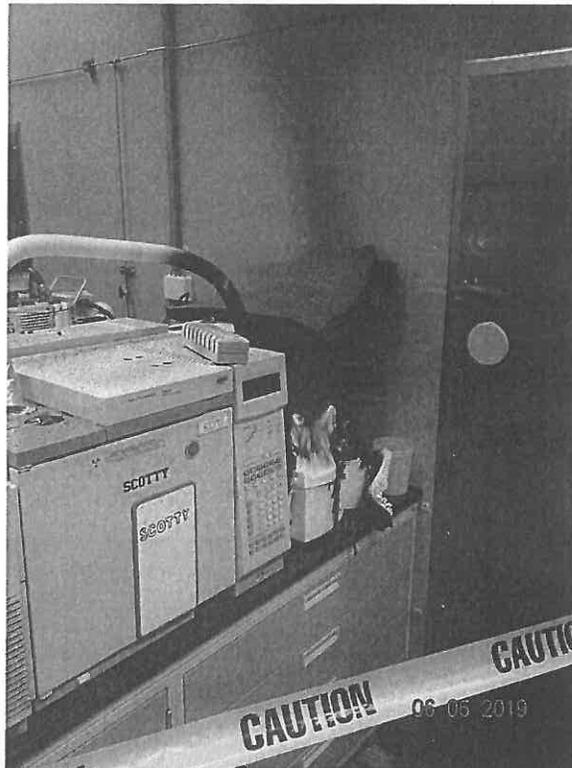
Teresa Murphy, Health Physics Technician, went over radiological safety requirements for entry into Room 4-TUV. After her briefing, we signed out of Building 2713S, walked to and signed in at the 222-S Laboratory around 9:50 a.m., and met up with the inspection group inside of the 222-S Lab. We were introduced to Amy Payton, Health Physics Technician, who went through the Radiological Work Permit requirements and helped us sign into the Radiological Access Control System (RACS). Ms. Payton explained RACS replaced the older Access Control/Entry System (ACES). Both Mr. Buser and I did not meet RACS entry requirements, so we stayed outside of 4-TUV and I requested Mr. Van Mason take our photos of the Satellite Accumulation Area and the vapor analysis machine involved in the fire.

From the hallway, I could see inside of Room 4-TUV through windows on the west side of the room. I observed black spill mats were placed on top of the burnt instrument and asked why they were placed there. Mr. Hansen said the mats were placed there because of water drips coming in from the ceilings air conditioning unit. He explained the room's temperature likely increased with the fire, and possibly created issues with the HVAC system and they did not want water causing various problems after the fire. I observed Mr. Van Mason, Ms. Murphy, and Ms. Payton enter room 4-TUV. Mr. Van Mason took photos of the instrument fire and the dangerous waste in the Satellite Accumulation Area. They exited Room 4-TUV and signed out of the RACS. I thanked everyone for their time and we left the 222-S Lab, signed out, and walked back to and signed into Building 2713S, Room 131. The time was around 10:47 a.m.

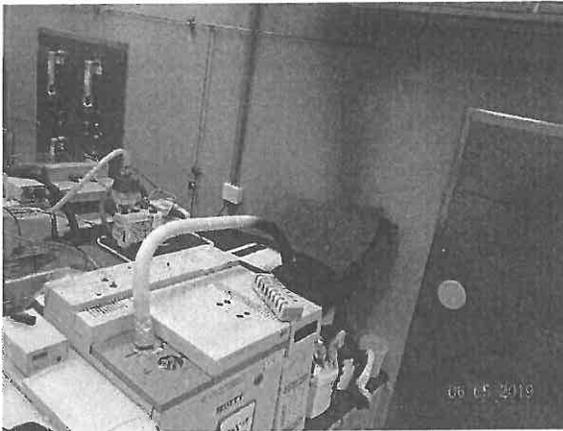


DSC02520 – Instrument fire in Room 4-TUV

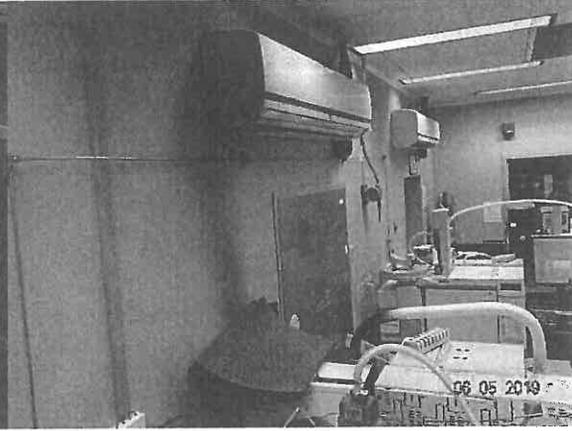
DSC02521 – Instrument fire in Room 4-TUV



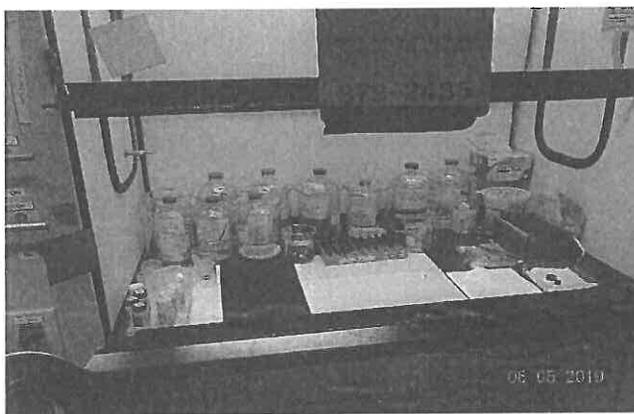
DSC02522 – Instrument fire in Room 4-TUV



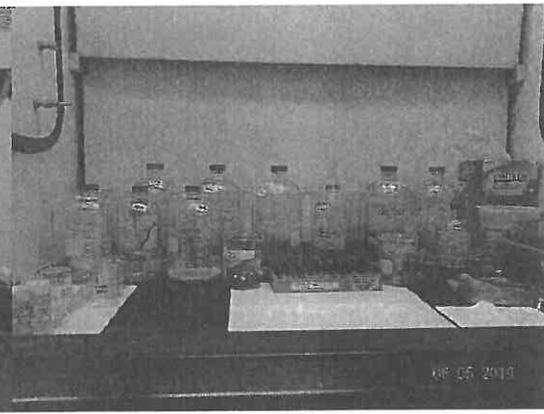
DSC02523 – Instrument fire in Room 4-TUV



DSC02524 – Instrument fire in Room 4-TUV



DSC02525 – Dangerous Waste Satellite Accumulation Area in Room 4-TUV



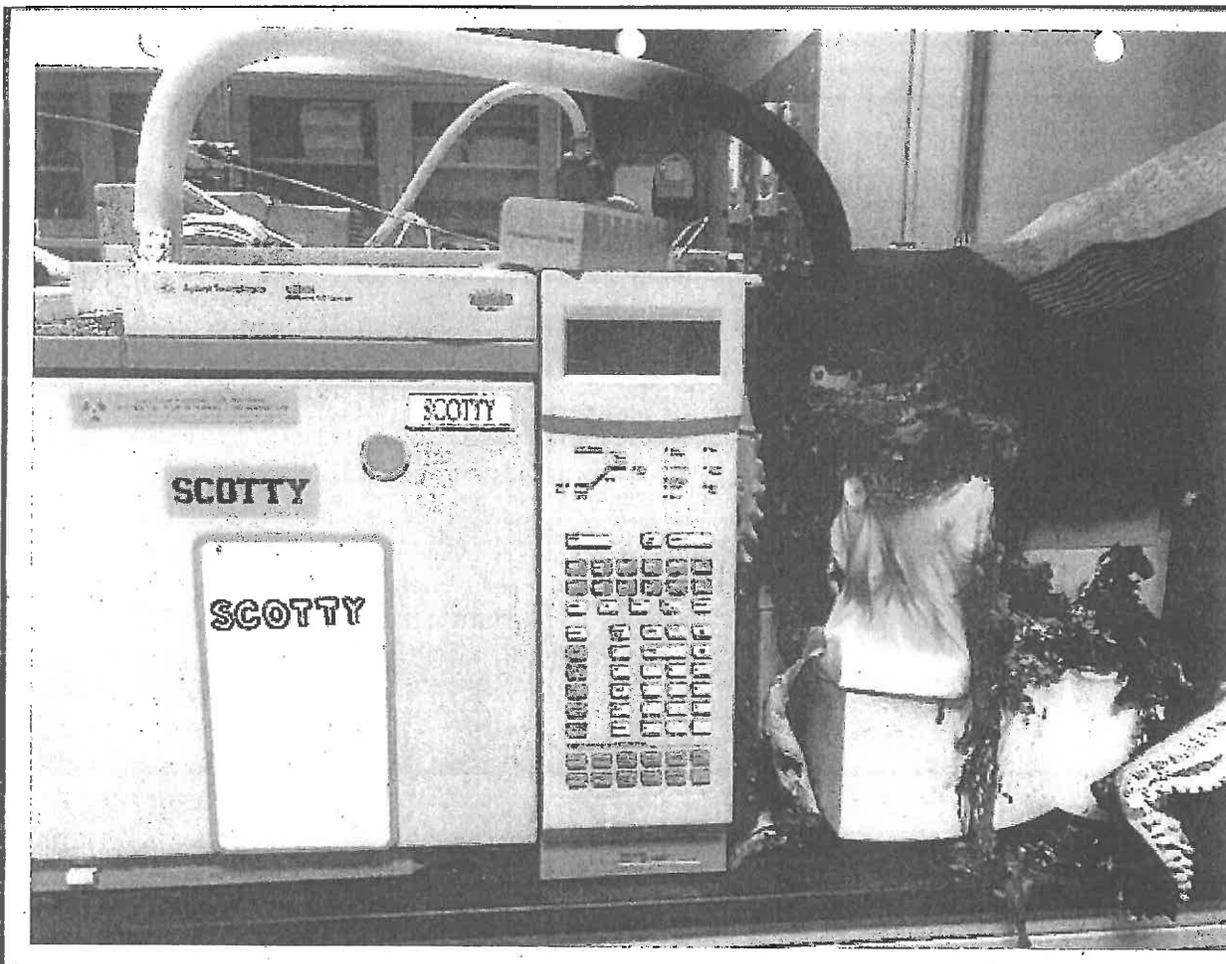
DSC02526 – Dangerous Waste Satellite Accumulation Area in Room 4-TUV



DSC02527 – Dangerous Waste Satellite Accumulation Area in Room 4-TUV



DSC02528 – Empty Dangerous Waste Satellite Accumulation Area in Room 4-TUV



WRPS provided photo of instrument fire in Room 4-TUV

Ms. Joyner said she confirmed that the Emergency Operation Center did call the Yakima Ecology office and said they would send Ecology a 15-day report for the incident. I went through the records I would be requesting and she explained they would work to get the records cleared as soon as possible. I explained I would like to look at the one day summary report one more time. I observed the following from the one-day summary report.

“At the time of the fire, plant surveillance personnel were the only employees working inside of the 222-S Laboratory.....The Hanford Fire Department indicated the there was smoke and very little fire upon arrival. They deenergized the affected equipment”

I thanked everyone for their time and we left the facility at 11:14 a.m.

Compliance Problems

The Dangerous Waste inspection on June 5, 2019, found the following compliance problems.

Each problem is covered in three parts:

- (1) **Citation from the regulations**
- (2) **Specific observations** from the inspection that highlight the problem
- (3) **Required actions** needed to fix the problem and achieve compliance

The problems listed below must be corrected to comply with Washington Dangerous Waste Regulations (Chapter 173-303 WAC), or other environmental laws or regulations. Complete the required actions listed below and respond to Ecology at the following address within the times specified in this compliance report. Include all supporting documentation such as photographs, records, and statements explaining the actions taken and dates completed to return to compliance.

Attention: Jared Mathey
Washington Department of Ecology
Nuclear Waste Program
3100 Port of Benton Blvd
Richland, WA 99354

You may request an extension of the deadlines to achieve compliance. Make the request in writing, including the reasons an extension is necessary and proposed date(s) for completion, and send it to Jared Mathey before the date specified above. Ecology will provide a written approval or denial of your request.

**If you have any questions about information in this Compliance Report, please call:
Jared Mathey at (509) 372-7949**

This does not relieve you of your continuing responsibility to comply with the regulations at all times.

- 1) **WAC 173-303-201(8) Contingency plan purpose and implementation. (a) The large quantity generator must have a contingency plan for the facility. The purpose of a contingency plan and emergency procedures is to lessen the potential impact on the public health and the environment due to any emergency event such as, but not limited to, a fire, natural disaster, explosion, or any unplanned sudden or nonsudden release of dangerous waste, hazardous substance or dangerous waste constituents to air, soil, surface water, or groundwater.**
(b) A contingency plan must be developed to lessen the potential impacts of such emergency events, and the plan must be implemented immediately when such emergency events occur.

WAC 173-303-400(3), as referenced by the Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion Revision 8C - Condition I.A Effect of Permit.

WAC 173-303-350(1) Purpose. The purpose of this section and WAC 173-303-360 is to lessen the potential impact on the public health and the environment in the event of any emergency event, including, but not limited to, a fire, natural disaster, explosion, or unplanned sudden or nonsudden release of dangerous waste, hazardous substance, or dangerous waste constituents to air, soil, surface water, or groundwater by a facility. A contingency plan must be developed to lessen the potential impacts of such emergency event, and the plan must be implemented immediately whenever such an emergency event occurs.

WAC 173-303-360(2)(k) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within fifteen days after the incident, they must submit a written report on the incident to the department. The report must include:

- (i) Name, address, and telephone number of the owner or operator;**
- (ii) Name, address, and telephone number of the facility;**
- (iii) Date, time, and type of incident (e.g., fire, explosion);**
- (iv) Name and quantity of material(s) involved;**
- (v) The extent of injuries, if any;**
- (vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable;**
- (vii) Estimated quantity and disposition of recovered material that resulted from the incident;**
- (viii) Cause of incident; and**
- (ix) Description of corrective action taken to prevent reoccurrence of the incident.**

Observations: On May 30, 2019, the Department of Ecology received a notification that on May 30, 2019 at approximately 0350 hours the 222-Labortory had a computer fire that was discovered within the Radiological Buffer Area (RBA) of the 222-S Laboratories in Room 4-TUV. The notification reported that the Hanford Fire Department responded and extinguished the fire.

During the inspection, I asked why the contingency plan was not implemented and who made the decision to not implement the plan. Mr. De Jonghe said he was awakened by a phone call around 3:44 a.m. and said he did not come to the scene until 6:10 a.m. He explained when he arrived, the Stationary Operating Engineer, David Lane updated him that the fire was extinguished. Mr. De Jonghe said he did not have time to implement the contingency plan as the fire was all taken care of when he arrived.

I observed Criteria 1., 2.b., and 3. for implementation of the contingency plan in Section 4.0 in RPP-PLAN-61970, Revision 1, *Building Emergency Plan for the 222-S Laboratory Complex* were met.

1. The event involved an unplanned spill, release, fire, or explosion,

AND

- 2.a. The unplanned spill or release involved a dangerous waste, or the material involved became a dangerous waste as a result of the event (e.g., product that is not recoverable.),

OR

- 2.b. The unplanned fire or explosion occurred at the 222-S Laboratory Complex or transportation activity subject to RCRA contingency planning requirements;

AND

3. Time urgent response from an emergency services organization was required to mitigate the event, or a threat to human health or the environment exists.

Action Required: No Further Action Required. On June 12, 2019, Ecology received a 15-day written report on the fire incident meeting the requirements of WAC 173-303-201(14)(k) and WAC 173-303-360(2)(k).

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 509-372-7950 or visit <https://ecology.wa.gov/accessibility>. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.

Attachment 1

May 30, 2019 – Hanford Fire Department Incident Report for 222-S, Room 4-TUV Fire



Hanford Fire Department
 Station: 01
 Shifts Or Platoon: A

Location: 222S Labs Hanford WA 99354	Incident Type: 100 - Fire, other
Lat/Long: N 46° 33' 2.46" W 119° 29' 20.31"	FDID: 03501 Incident #: 2019-0305 Exposure ID: 37422571 Exposure #: 0 Incident Date: 05/30/2019
Zone: 200W - 200W Location Type: 1 - Street address	

Report Completed by:	Simard, Scott P	ID: [REDACTED]	Date: 05/30/2019
Report Reviewed by:	Hibbs, Ryan L	ID: [REDACTED]	Date: 06/03/2019
Report Printed by:	Hibbs, Ryan L	ID: [REDACTED]	Date: 6/4/2019 Time: 05:19

Structure Type:	Property Use: 629 - Laboratory or science laboratory		
Automatic Extinguishment System Present:	<input type="checkbox"/>	Detectors Present:	<input type="checkbox"/> Cause of Ignition: Failure of equipment or heat source
Aid Given or Received:	None	Primary action taken:	10 - Fire control or extinguishment, other
Additional actions:	86 - Investigate, -		
Losses	Pre-Incident Values		
Property:	Property:	Civilian Injuries:	0 Fire Service Injuries: 0
Contents:	Contents:	Civilian Fatalities:	0 Fire Service Fatalities: 0
Total:	Total:	Total Casualties:	0 Total Fire Service Casualties: 0
Total # of apparatus on call:	4	Total # of personnel on call:	10

Approved for Public Release;
 Further Dissemination Unlimited

NARRATIVE (1)

Narrative Title: 222S Labs Equipment Fire

Narrative Author: Simard, Scott

Narrative Date: 05/30/2019 10:27:15

Narrative Apparatus ID: E1912

Narrative:

At 03:44 hours on 05/30/2019 HFD was dispatched to a fire alarm at the 222S Lab Building in 200W Area. BC191, E1912, L1921 and M1922 were assigned to this incident, a total of ten personnel responded. While en-route dispatch reported they received a Zone 13 alarm from RFAR 2870, corresponding to smoke detectors and pull boxes in the Lab Building.

M1922, and E1912 were the first apparatus to arrive on scene. A size-up was communicated to dispatch; no visible smoke/fire upon arrival, will be investigating. HFD was met by SOE in parking lot who stated that before he exited the facility he believed that he saw smoke inside room 4TUV, and noted water on floor in hallway adjacent to room 4TUV. SOE stated there is negligible radiological concern in room 4TUV.

E1912 Captain and 2 firefighters made entry into the Lab section of Building with irons and pressurized water can (PWC) extinguisher. Upon entering the hallway of the Lab section, light-colored smoke was observed through the windows of room 4TUV.

SCBA's were donned and entry made to room 4TUV, where HFD discovered what appeared to be a shorted-out computer tower and smoldering adjacent to a mass spectrometer, which had burned/melted significantly.

Equipment was de-energized by unplugging it from the source. Fire was noted to be completely out at that time. L1921 had arrived on scene during entry, and advised to stand by outside structure. Dispatch notified at 04:08 hours that fire was extinguished. Extinguishing agent(s)/suppression were not utilized as the fire self extinguished.

Prior to exiting room, photos were taken of fire area. Water was noted on lab bench and floor in area of fire, which appeared to be condensate dripping from AC unit on the wall above area of origin.

Radiological hand and foot surveys were conducted with rad instruments prior to exiting room. HFD then met with a Radiological Control Technician (RCT) in the hallway where he also performed survey of hands/feet/equipment. Upon exiting the room, the water on hallway floor is adjacent to area of origin, leaked out under OOS doorway.

A face-to-face was performed with Battalion Chief Batchelder, who had arrived on scene and assumed command. We explained what we encountered in room or origin, and shared pictures with him electronically. IC made contact with the Hanford Emergency Operations Center (EOC) and informed them of the event/incident.

The alarm was acknowledged and silenced in fire alarm control panel (FACP) and the system was restored to normal condition; RFAR 2870 restored.

The IC released L1921, E1912 and M1922 from scene, and remained on the scene until arrival of Fire Marshall for investigation. A face to face turnover was performed between the IC and Fire Marshal.

Alarm number 2019-305 has been assigned to this incident.

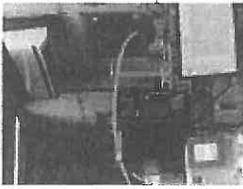
SP5

APPARATUS			
Unit	BC191	Unit	E1912
Type:	Chief officer car	Type:	Engine
Use:	Suppression	Use:	Suppression
Response Mode:	Lights and Sirens	Response Mode:	Lights and Sirens
# of People	1	# of People	4
Alarm	05/30/2019 03:44:14	Alarm	05/30/2019 03:44:14
Dispatched	05/30/2019 03:44:29	Dispatched	05/30/2019 03:44:29
Enroute	05/30/2019 04:07:19	Enroute	05/30/2019 03:48:05
Arrived	05/30/2019 04:14:33	Arrived	05/30/2019 03:53:31
Cancelled	- / - / - - : - : -	Cancelled	- / - / - - : - : -
Cleared Scene	05/30/2019 06:33:40	Cleared Scene	05/30/2019 04:41:05
In Quarters	- / - / - - : - : -	In Quarters	- / - / - - : - : -
In Service	05/30/2019 06:40:32	In Service	05/30/2019 04:48:03
Unit	L1921	Unit	L1922
Type:	Engine	Type:	Engine
Use:	Suppression	Use:	Suppression
Response Mode:	Lights and Sirens	Response Mode:	Lights and Sirens
# of People	3	# of People	2
Alarm	05/30/2019 03:44:14	Alarm	05/30/2019 03:44:14
Dispatched	05/30/2019 03:44:29	Dispatched	05/30/2019 03:44:30
Enroute	05/30/2019 03:49:30	Enroute	05/30/2019 03:47:46
Arrived	05/30/2019 04:02:13	Arrived	05/30/2019 03:52:05
Cancelled	- / - / - - : - : -	Cancelled	- / - / - - : - : -
Cleared Scene	05/30/2019 04:27:14	Cleared Scene	05/30/2019 04:29:44
In Quarters	- / - / - - : - : -	In Quarters	- / - / - - : - : -
In Service	05/30/2019 04:45:58	In Service	05/30/2019 04:36:43
Number Of People not on apparatus: 0			

FIRE			
Acres Burned	None or Less Than One	Acres Burn From Wildland Form	False
Area Of Fire Origin	Laboratory	Heat Source	Electrical arcing
Item First Ignited	Appliance housing or casing	Fire Is Confined To Object Of Origin	
Type Of Material	Plastic	Cause Of Ignition	Failure of equipment or heat source
Factor Contributing To Ignition	Water-caused short-circuit arc		
Human Factors Contributing	None		
Equipment Involved In Ignition Flag	True	Equipment Involved	Electronic equipment, other
Equipment Power Source	Electrical line voltage (>= 50 volts)	Equipment Portability	Stationary

PEOPLE -- PERSON 1			
Is Owner	False	Business Name	WRPS
Telephone Number	[REDACTED]	Involvement	SOE
Name	[REDACTED]	Date of Birth	
Address	[REDACTED]		

PEOPLE -- PERSON 2			
Is Owner	False	Business Name	WRPS Radcon
Telephone Number	[REDACTED]	Involvement	RCT
Name	[REDACTED]	Date of Birth	
Address	[REDACTED]		

CUSTOM FIELDS FORM	
RFAR Alarm Type	N/A
INCIDENT IMAGES	
	
	

PERSONNEL ON CALL			
Name	Personnel Rank	Role(s)	Apparatus
Batchelder, Bric J	Battalion Chief		BC191
Jones, Scott D	Firefighter/EMT		E1912
Kravets, Dmitry V	Firefighter/EMT		L1922
Miller, Kevin L	Captain		L1921
Moncrief, Capp L	Firefighter/EMT		L1921
Perkins, David C	Firefighter/Paramedic		L1922
Shay, Jacob J	Firefighter/EMT		E1912
Simard, Scott P	Captain		E1912
Stocker, Andrew L	Firefighter/EMT		E1912
Tucker, Andrew L	Firefighter/EMT		L1921

Member Making Report (Captain Scott P Simard): _____

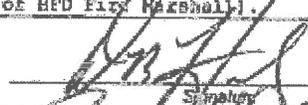
Incident Reviewer (Operations Specialist Ryzn L Hibbs): _____

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Attachment 2

May 30, 2019 – Event Summary Form
222-S, Room 4-TUV Analytical Equipment

Washington River Protection Solutions EVENT SUMMARY FORM	
NOTE: This form provides timely notification to management and documents preliminary information of an event that may require a more formal investigation. Details may change upon further examination and analysis. The following is a current status of available information.	
Project: 222-S, Room 4TUV Analytical Equipment	Date: 5/30/19
Area/Building/Location: 222-S/200 West Area	Approximate Time of Event: 0344
Event Summary (Part I) Provide within 24 hours:	
Personnel Involved (Job positions, number of personnel. Identify any support organizations or subcontractors directly involved).	
Stationary Operating Engineer (SOE), Health Physics Technician (HPT), Hanford Fire Department (HFD) Firefighters	
What Happened (Provide a short discussion of what happened):	
At 0344 an alarm was received at the 222-S Main Fire Alarm Panel in room 3A. An SOE responded to the alarm and noticed water on the floor and smoke in room 4TUV. The SOE immediately called the Hanford Fire Department (HFD). The HFD was dispatched to 222S Laboratory to investigate. It was determined there was a localized fire within "Scotty," which is a Gas Chromatograph Mass Spectrometer configured with a Thermal Desorption (TDN) Sampling unit located inside lab room 4TUV. The equipment was procured by WRPS but maintained and operated by Nastron Advantage Inc. The instrumentation was last operated on 5/29/19 at approximately 1330. At the time of the fire, plant surveillance personnel were the only employees working inside the 222S Laboratory. The source of the water on the floor may be attributed to a nearby air conditioning unit (HVAC-FCU-4TUV-1). The HFD indicated there was smoke and very little fire upon arrival. They de-energized the affected equipment. Lab room 4TUV is posted as a Radiological Buffer Area (RBA). Firefighters received radiological surveys by plant Health Physics Technicians and exited the 222-S Laboratory. No radiological contamination was discovered on the firefighters and they were released from the facility. An Abnormal Event was declared at 0429 by the Hanford Fire Department and Emergency Operations Center. Event Investigation EIR-2019-024 was initiated at 1950. This event was documented in WRPS-2019-1066. The event was reported in the Occurrence Reporting & Processing System (ORPS) under the following criteria: Group 2 - Personnel Safety and Health/Subgroup B - Fires/1311 - Any fire in a nuclear facility.	
Where Did It Happen (Description of work area and working conditions. Include information on weather conditions, PPE, Postings, etc.)	
The event occurred at the 222-S facility in room 4TUV. Room 4TUV is posted as an RBA. The equipment was not in use at the time and was in stand-by mode.	
Impact to Facility (Caused by the event):	
Lab room 4TUV has been placed on Restricted Access by Facility Operations in conjunction with the HFD.	
Immediate Actions Taken (What immediate actions were taken to stabilize the scene?):	
1. HFD responded immediately. 2. Alarm Response Procedure ARP-002-100, "Respond to 222-S Laboratory Alarms," was entered and actions completed. 3. Radiological Surveys were performed - no contamination detected. 4. Lab room 4TUV has been placed on Restricted Access by Facility Operations in conjunction with the HFD. 5. All similar instruments were de-energized pending further investigation. 6. HVAC-FCU-4TUV-1 was placed in the OFF position. 7. HFD initiated investigation activities in accordance with National Fire Protection Association NFPA 921, "Guide for Fire and Explosion Investigations."	
Notifications Already Made (Time and personnel notified):	
Don Hardy, 5/30/19 @ 0355 Ron Gioia, 5/30/19 @ 0648 Jonathan Elman, 5/30/19 @ 0744 WRPS Operations Management, Nastron Management, Facility personnel, 5/30/19 between 0355 and 0527.	

Washington River Protection Solutions EVENT SUMMARY FORM (Continued)		
Follow-Up		
Document the Alternate Investigation or Resolution Process if it is determined the Event Investigation Process is not required (Criteria in TFC-OPS-OPER-C-14, Attachment A and B): N/A		
Event Investigation Meeting Held? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Why/Why Not? (Provide Justification): An Event Investigation Meeting will be held in accordance with TFC-OPS-OPER-C-14, "Event Investigation Process." The date will be set as soon as feasibility possible (this takes into account travel by the Vendor and availability of HFD Fire Marshall).		
Responsible Manager:		
Don Hardy <i>Print First and Last Name</i>	 <i>Signature</i>	5/30/19 <i>Date</i>
CAS Manager Concurrence:		
Ryan Hadley <i>Print First and Last Name</i>	 <i>Signature</i>	5/30/19 <i>Date</i>
Event Investigation Summary (Part II) Provide within 4 working days. (Key investigation points and any compensatory measure implemented if different from immediate actions taken):		
Lessons Learned (Discuss lessons learned resulting from the event):		
Responsible Manager:		
 <i>Print First and Last Name</i>	 <i>Signature</i>	 <i>Date</i>
CAS Manager or Event Investigator Concurrence:		
 <i>Print First and Last Name</i>	 <i>Signature</i>	 <i>Date</i>

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