

Technical Writing Samples:  
On-the Job Training Manual &  
Practical Assessment Certification

# Spray Retort Operator

On-the-Job Training Manual

**PORTFOLIO WORK  
SAMPLES: FOR  
INFORMATION ONLY  
PURPOSES**

Name:

Start date:

OJT Spray Retort Operator

Version: 00.00.0000

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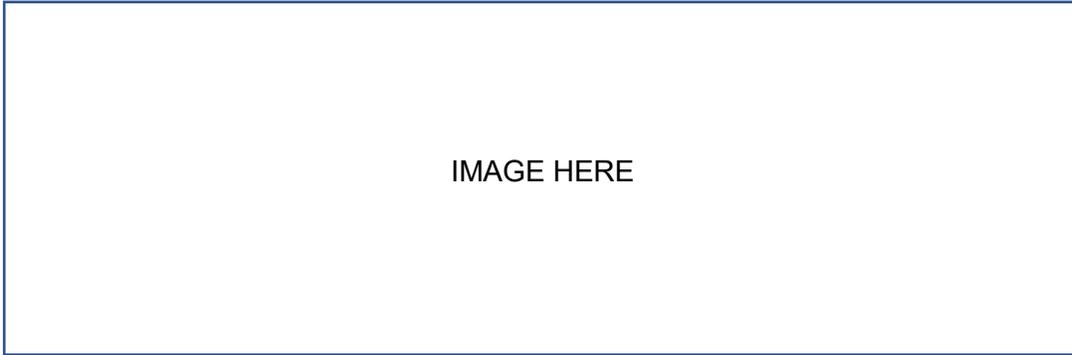
## Job Description

Position: Automated Spray Retort Operator

Department: XXXXXX

See Human Resources for the latest job description.

### Why This Job is Important



Through science-based products and services, [ABC] is helping to enhance the quality of people's lives by supporting healthy living and providing care for those with special needs at every stage of life.

In your community, many places are using [ABC] product. As part of the [ABC] work community, take pride in knowing your work contributions are touching other lives.

As a Spray Retort Operator, you are responsible for the automated processing of product as it enters and until it leaves the area. This includes the loading and unloading of product using the basket tracking system and monitoring all aspects of the retort processing system.

Along the way, your attention to documenting process records and related information is critical. If there is a reason to track a particular part of the process, we will have the necessary information to follow. Accuracy is critical for Good Manufacturing Practices (GMP) compliance, FDA and MDA regulatory compliance, consumer safety, and the well being of our business. Our customers and [ABC] are counting on you to double-check your work every step of the way.

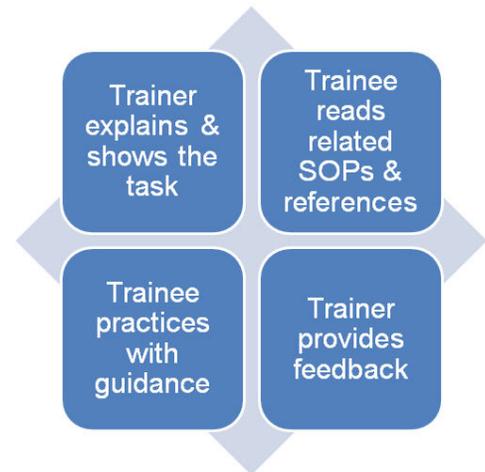
## OJT Process and Time Frame

Our goal is to ensure you have a comprehensive training experience. We want to ensure you have the development to enhance technical skills and make confident decisions. Another key focus is being able to accurately describe issues to Maintenance so root causes can be identified and fixed with less errors and downtime.

The most successful On-the-job training provides a solid foundation and includes a guided flow to learn the job. [ABC] OJT builds strong technical skills by incorporating a combination of learning methods as shown.

Keeping in mind everyone learns differently it's important you share with your trainer your own learning style and how you prefer to receive feedback.

Listed below is an approximate time frame it takes to complete the training.



Position	Description	Approximate Training Time
New/Transfer Operator	New operator to the job/ Operator transferring from another area	80 – 120 hours
Relief Operator	Operator providing assistance during breaks or vacation	80 hours

## Recording Training Completion

As with any documentation, this manual is your personal record of training completion and must be filled out using the steps below:

1. **Record all task completion** in this training manual to confirm your accomplishment of OJT in your training file.
2. When training on a task, mark off each subtask checkbox as you complete it. While practicing the task with your trainer, you both will have a sense of how many times to practice and build confidence.
3. Mark each checkbox and task as you complete it, so it will be easy for another trainer or supervisor to identify at a given moment where you are at in the training process.
4. When you and your trainer feel confident you can perform the task *without trainer guidance*, you both initial and date the task as complete.

### Learning the Basics

Your training plan includes not only guided On-the-Job training, but ongoing sessions to give you the knowledge and skills to support our efforts to provide science-based products and services, safely and with the highest quality standards. This section contains important practices to provide a foundation for your training. Later, you will attend comprehensive sessions as directed by your supervisor.

### Working Safely

Spray Retort systems are pressurized vessels and capable of producing up to 70 psi. Be mindful when working around this equipment and use safe work practices. If an explosion occurs, you could be exposed to intense steam which causes severe burns and injury.

Follow these safe work practices (this list not inclusive):

-  **Follow LOTO procedures.**
-  **Use Confined Space procedures.**
-  **Monitor safety.**
-  **Never start the machine without the guards or safety devices in place.**
-  **Wear protective shoes during the loading and unloading of the retort.**
-  **Do not open, clean, lubricate or repair machine during operation.**
-  **Never reach over, under or into working machinery with hands, feet, rags or any tools.**
-  **Do not open electrical panels or enter MCC rooms.**
-  **Be aware of overall energy sources.**
-  **Automated sequences may not stop, be aware at all times.**
-  **Practice risk awareness and be alert to take safety action. Automated actions are not always inside a guard.**

### Quality at Work

#### ***GMPs***

GMPs are a set of current, scientifically sound methods, practices or principles that are followed and documented during development and production to ensure consistent manufacture of safe, pure and effective products. GMPs are written by the government with input from experts in industry and academics.

They are part of our country's laws and therefore there are consequences if we do not follow them. FDA is assigned with assessing compliance to GMP's and enforcing any deviations. As many of our products provide a source of nutrition to sensitive consumers, it is important we consistently use these practices. The FDA ensures GMPs are followed via several methods including periodic, unannounced plant inspections and/or warning or violation letters. You will attend more training to learn about GMPs and actions you can take to prevent deviations.

#### ***HACCP***

HACCP ensures the food safety of our products (which may or may not impact the quality.) Our consumers rely on us to provide a product they can consume with no risk, and we have no margin for error with food safety.

In our operation, it is important that we monitor quality in everything that we do and HACCP assists us to do so. HA stands for the study of hazards and CCP for critical control points.

HACCP identifies the areas that we must be special attention to, so we do not experience any unacceptable deviations— areas specifically related to food safety. You will receive training to give you more background on what your role is related to this important responsibility.

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## Spray Retort Area Overview

### Spray Retort Area Process Flow

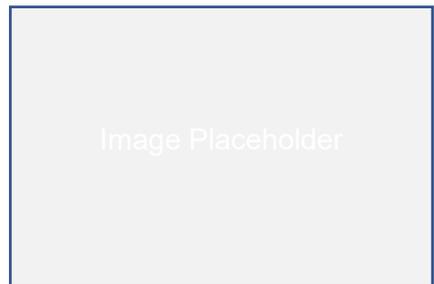
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## About Retort Spray Systems

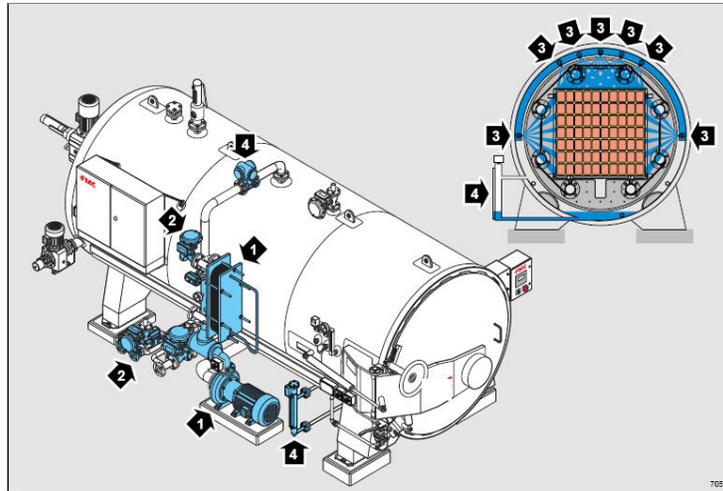
### *General differences between Water Spray and Water Immersion Retorts*

	Water Spray Retort	Water Immersion Retort
<b>Construction</b>	<ul style="list-style-type: none"> <li>• Vertical bottle loading in trays.</li> <li>• Auto loading and unloading (computerized control system)</li> </ul>	<ul style="list-style-type: none"> <li>• Horizontal bottle loading of trays</li> <li>• Manual loading and unloading</li> <li>• Retort fills with water and rotates</li> <li>• Side loading of bottles between crate forks</li> </ul>
<b>Load Set Up</b>	<ul style="list-style-type: none"> <li>• Holds up to 4 baskets</li> <li>• Operates partial loads</li> </ul>	<ul style="list-style-type: none"> <li>• Holds 4 crates</li> <li>• Requires full load to operate</li> </ul>
<b>Capacity</b>	1.0 liter = 1232 bottles/cycle (4 trays per basket) 1.5 liter = 924 bottles/cycle (3 trays per basket)	Small retort: 1.0 liter = 600 bottles/load 1.5 liter = 400 bottles/load  Large retort: 1.0 liter = 960 bottles/load 1.5 liter = 720 bottles/load
<b>Operation</b>	<ul style="list-style-type: none"> <li>• Full basket rotation</li> <li>• Spray nozzles and steam injection               <ul style="list-style-type: none"> <li>▪ No water preheat</li> <li>▪ Direct steam injection from outside steam supply</li> <li>▪ Temperature increased by adding outside steam spray</li> <li>▪ Instant reloading</li> </ul> </li> <li>• Water spray only</li> <li>• Heat exchanger cooling process with sterile water</li> <li>• Two HMI screens               <ul style="list-style-type: none"> <li>▪ Process cycle screen displays after door closes</li> </ul> </li> <li>• Auto air (pneumatic) clamp system</li> </ul>	<ul style="list-style-type: none"> <li>• Full crate rotation inside retort</li> <li>• Water touches bottles, retort full of water</li> <li>• Water immersion and steam               <ul style="list-style-type: none"> <li>▪ Water pre-heated in upper drum, dropped to lower retort when full temperature is reached</li> <li>▪ Temperature increased through internal steam injection</li> <li>▪ 10-15 minute reload cycle due to preheating water</li> </ul> </li> <li>• Cooling water added to lower chamber</li> <li>• One HMI screen               <ul style="list-style-type: none"> <li>▪ No auto door closure</li> </ul> </li> <li>• Manual screw down top after loading</li> </ul>

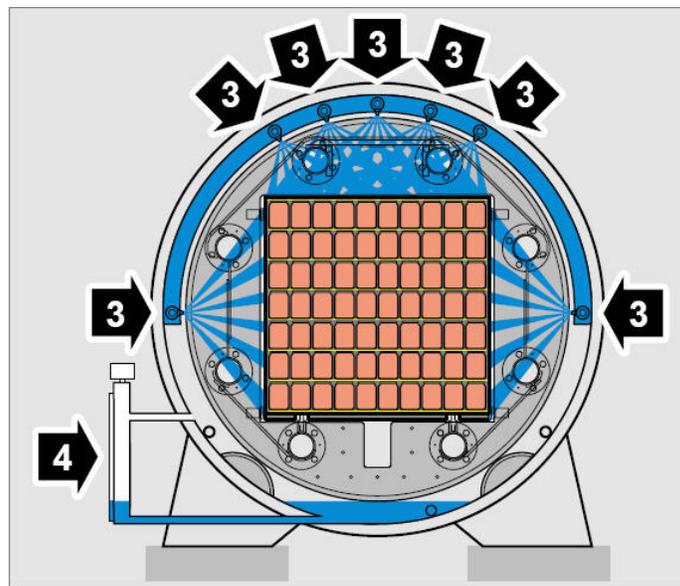
*How the Spray Flow Works*

The Spray retort fluid circuit consists of the following components identified by the numbers in the diagram below:

- Pump, filter and heat exchanger **1**
- Valves **2**
- Spraying pipes **3**
- Flow meter and level control devices **4**



The spraying pipe system installed inside the retort consists of pipes mounted on each side of a central collector, with spray nozzles (#3) equally spread over the four basket positions guaranteeing a uniform temperature distribution. The level control device (#4) is shown below.

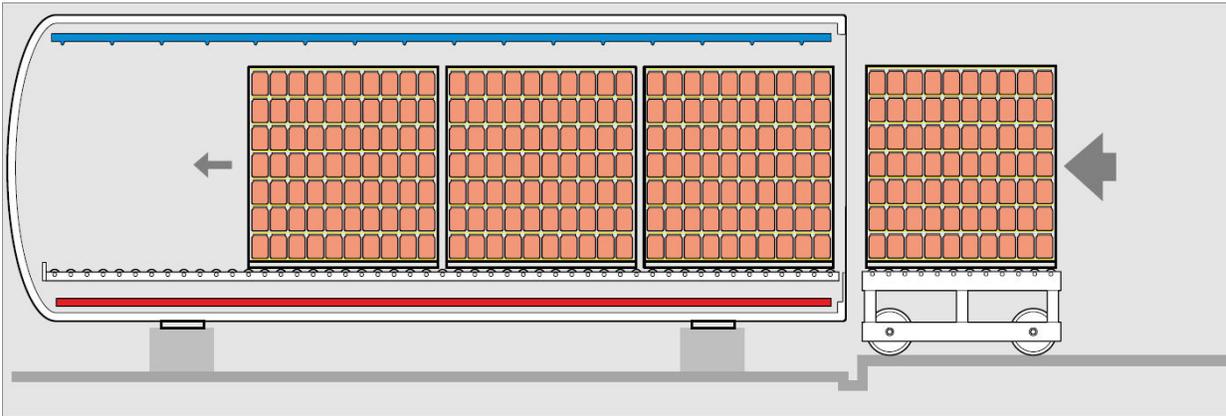


**Spray Pipe Flow**

*Spray Retort System Cycle Overview*

**Loading Cycle**

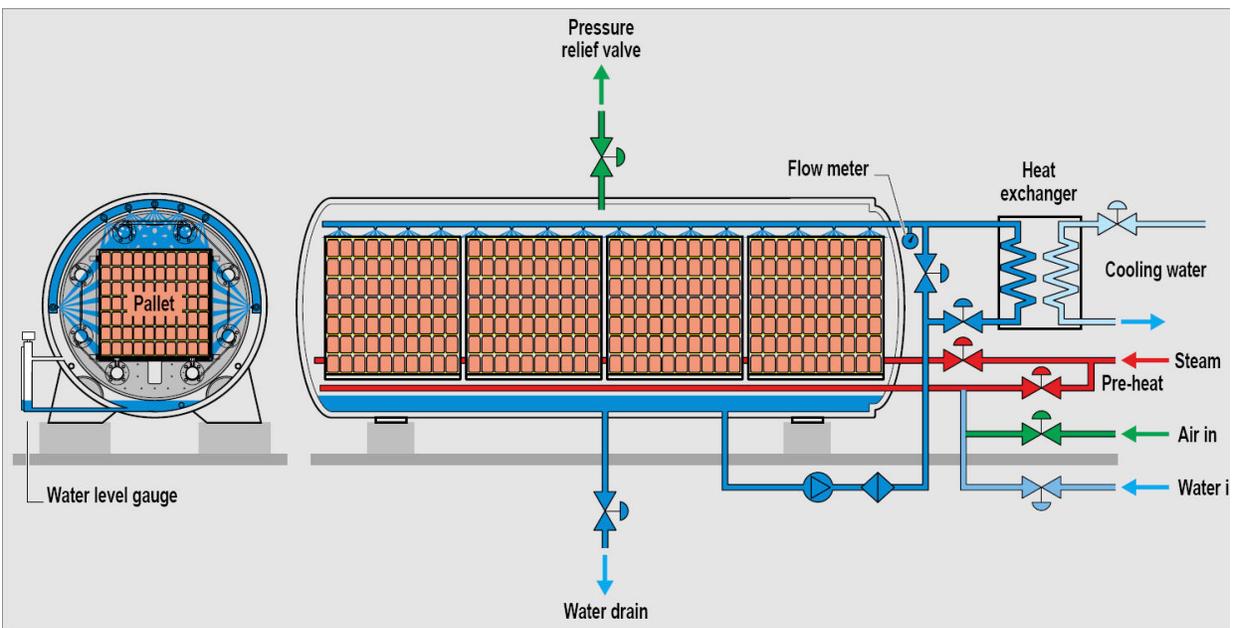
After baskets are packed, the SGV moves the baskets to the retort. A conveyor chain equipped with special brackets or “fingers” carries the baskets into the retort when it detects a basket pushing against the basket sensor. When all baskets are loaded, the door closes and locks.



**Baskets Loading into the Retort**

**Sterilization Cycle**

A sterilization process consists of gradually heating up the product, then keeping it at the designated sterilization temperature and afterwards cooling it down to a specified temperature. During this process pressure is controlled and precisely adjusted to compensate for the internal pressure build-up in the food package and thus avoid explosion or implosion of bottles.



**Sterilization Cycle Flow**

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## Job Outline: Spray Retort Operator

### 1. Review the Spray Retort Overview section

With your Trainer, review the Spray Retort Overview section in this manual regarding:

- Area process flow.
- Spray Retorts versus Immersion.
- Spray system water flow and cycle review



- Explain how the spray system differs vs. an immersion retort.
- Review the system water flow and cycle operations with your Trainer.
- Initial date this task as complete:

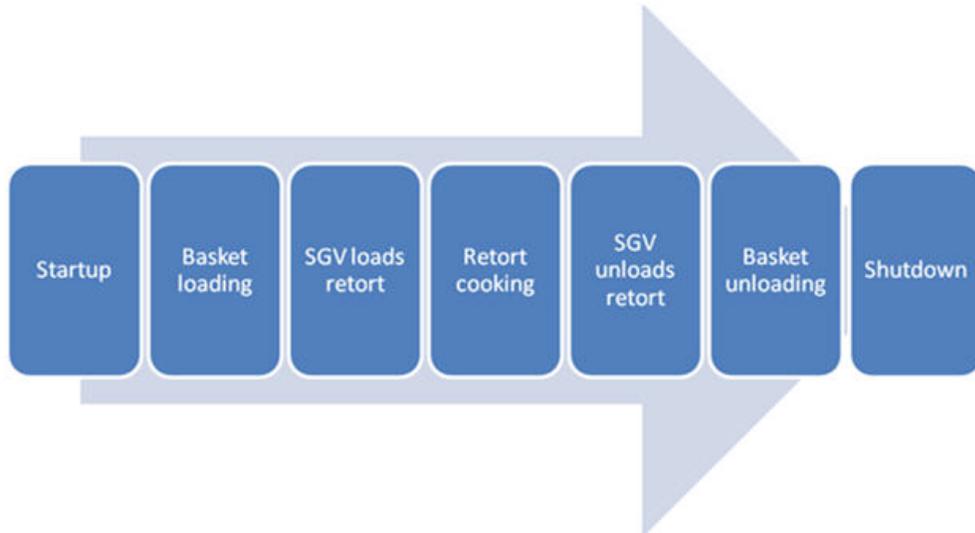
Trainee initial/date:

Trainer initial/date:

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### 2. Review and explain the Retort process flow

- Review the Retort Process Flow shown below.



- Next, your trainer will walk through this process on the floor while explaining the basic flow. This is important to visualize the overall flow before you learn each task in the process.
- When you have accurately explained the process flow back to your trainer, initial date this task as complete:

Trainee initial/date:

Trainer initial/date:

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**3. Other steps in between would be here**

- Have your trainer explain and demonstrate SOP XXXX
- This SOP explains how to do...
- When you are comfortable completing [the task] with no guidance, initial date this task as complete:

Trainee initial/date:

Trainer initial/date:

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**4. Complete Shutdown activities when required**

- Have your trainer explain and demonstrate SOP XXXX Preparing the Area for Shutdown.  
This SOP explains how to properly shut down the area for weekends and extended shutdown periods.
- Read SOP XXXX Preparing the Area for Shutdown and practice with trainer guidance.
- When you are comfortable completing Preparing the Area for Shutdown with no guidance, initial date this task as complete:

Trainee initial/date:

Trainer initial/date:

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**5. Complete final training sign-off**

Congratulations on completing this On-the-Job training! If you have questions about performing any of the tasks, ask your Trainer to assist you with further practice. Before you sign off on your training, [ABC] wants you to feel confident and be responsible to perform each task as the work you do impacts the health and well being of others.

When you have demonstrated you can complete all training tasks with no guidance provide your signature and date below along with your Trainer and Supervisor. Your Supervisor will forward this manual to HR/Training for updating your training record.

Trainee signature/date:

Trainer signature/date:

Supervisor signature/date:



# Spray Retort Certification Practical Assessment

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Operator: \_\_\_\_\_ Completion date: \_\_\_\_\_

Observer: \_\_\_\_\_

This Practical Assessment confirms Spray Retort Operators have mastered critical tasks and is part of the certification process. Operators (participant) must achieve a value of 180 out of 180 possible to successfully complete this Assessment.

## Observer Preparation Instructions:

Prepare for the Assessment by reviewing all set up instructions for the test scenarios for each task, along with the task objectives and indicators for mastery. Use this form as a verbal guide and to record the results. Participants either Master the task or are retrained after the assessment to decrease skill gaps.

Ask the participant to perform the objective using the stated verbiage. Observe the participant while referring to the Indicator section to verify whether they have mastered the objective. If a participant **does not** complete the task successfully using all indicators, mark the task as "Retrain".

At the end of the assessment, assure Participants they will be retrained on tasks they did not Master to enhance technical skills and increase competency. When the participant successfully completes retrained tasks, initial/date the assessment as complete for training records.

## Start Up / Shutdown

1. Start Up Preparation	Results	Value = 10
<p><b>Observer set up for test scenarios:</b>                      Place an obstacle on the floor in the XXX and retort travel area.                      Set up an improperly installed chart (not under all holding pins, not secure on center placement hub, etc).                      Place two pieces equipment in manual state.                      Select a retort and close a water valve.</p> <p><b>Objective:</b>                      Ask participant to verify equipment is ready for startup while verbalizing preparation activities, checks and actions.</p> <p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Opens all retort valves.</li> <li><input type="checkbox"/> Clears all alarms and verified equipment in auto state.</li> <li><input type="checkbox"/> Prepares documentation forms for production.</li> <li><input type="checkbox"/> Properly installs charts:                             <ul style="list-style-type: none"> <li><input type="checkbox"/> Securely places the chart on the center hub. When placed correctly, the smaller placement hub appears to stick out approximately ¼ inch.</li> <li><input type="checkbox"/> Aligns entire perimeter of the chart underneath the holding pins.</li> <li><input type="checkbox"/> Places pen back into position for chart recording.</li> </ul> </li> <li><input type="checkbox"/> Assigns correct recipe to all retorts at host computer.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Retrain</li> <li><input type="checkbox"/> Mastered</li> </ul> Observer Initial/Date:	

# Spray Retort Certification Practical Assessment

1. Start Up Preparation	Results	Value = 10
<input type="checkbox"/> Assigns correct item number and lot code to XXX. <input type="checkbox"/> Ensures the floor is clear.  <b>Notes:</b>		

2. Shutdown	Results	Value = 5
<b>Objective:</b> Ask participant to prepare area for weekend shutdown.  <b>Indicators:</b> <input type="checkbox"/> Performs full drain of all retorts. <input type="checkbox"/> Turns XXX communication to manual and XXX to "AUTO OFF". <input type="checkbox"/> Ensures both XXX have fully charged batteries and are turned off. <input type="checkbox"/> Places all documentation in the designated bin. <input type="checkbox"/> Cleans area of any product spills, empties trash, leaves area organized for next production run.  <b>Notes:</b>	<input type="checkbox"/> Retrain <input type="checkbox"/> Mastered  Observer Initial/Date:	

[SUBJECT HERE]

4. XXX Battery Change	Results	Value = 10
<b>Objective:</b> Ask participant to perform a battery swap on the XXX according to SOP, while verbalizing preparation activities, checks and actions. Ask participant to verbalize what they would do in the event of a battery acid leak.  <b>Indicators:</b> <input type="checkbox"/> Checks the battery level. <input type="checkbox"/> Participant verbalizes requirement to don PPE when using the spill kit in the event of a battery acid leak. <input type="checkbox"/> Turns XXX off, swaps battery and then turns back on. <input type="checkbox"/> Gives XXX instruction to return to work area.  <b>Notes:</b>	<input type="checkbox"/> Retrain <input type="checkbox"/> Mastered  Observer Initial/Date:	

*Continued on next page*

# Spray Retort Certification Practical Assessment

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MORE STEPS WOULD BE HERE

14. Printing Reports	Results	Value = 10
<p><b>Objective:</b> Ask participant to print reports at the completion of a cycle.</p> <p><b>Indicators:</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> Prints correct reports: XXX report for each retort</li><li><input type="checkbox"/> Places reports in the proper documentation bin for the day.</li></ul> <p><b>Notes:</b></p>	<ul style="list-style-type: none"><li><input type="checkbox"/> Retrain</li><li><input type="checkbox"/> Mastered</li></ul> Observer Initial/Date:	

## NOTES ON THIS SAMPLE:

This general sample is a snapshot of part of a practical assessment where the trainer sets up and observes the trainee completing designated tasks. The assessment was developed with operators, trainers and supervisors giving input on what the task is, the successful indicators of mastery and the value.

Part of the certification includes a quiz as well as this practical assessment.

End of practical assessment.