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<b>Title:</b>	<b>Oil Sampling and Shipping</b>	<b>Number:</b>	12-50.806.CGENV
		<b>Effective Date:</b>	16 May 2005
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## 1 PURPOSE

1.1 The purpose of this work instruction is to:

- 1.1.1 Ensure an accurate analysis each time a sample is collected.
- 1.1.2 Minimize variables by using consistent steps.
- 1.1.3 Collect a sample representative of the machine's oil. (i.e. collect under normal operating conditions or in the same manner each time).
- 1.1.4 Make sure the sample is not contaminated during collection or shipping.
- 1.1.5 Collect sample using the same steps each time a sample is collected. (i.e. sample at the same location).
- 1.1.6 Collect Vibration, Motor Current, Oil and Refrigerant sample/measurements at the same time.
- 1.1.7 Ensure a timely analysis, so the Combined Predictive report is delivered to the customer within 2 weeks as defined by the contract.

**Note: Ship the sample within 1 day.** This is necessary to ensure the lab you are using can complete their analysis within 1 week of the sampling date, and it only provides the Predictive Team 1 week to complete the report that combines the results with the Vibration, Motor Current & Refrigerant analyses

## 2 SCOPE

	Asia	EMEA	Japan	Americas	Compliance expected as written	Can be tailored to local needs	Specific Applicability / Variance / Exceptions
BEHQ				X			Also applies to BLJC
GWS				X			
JCFS				X			
GTM				X			
SS				X			

## **3 SUMMARY OF CHANGES**

- 3.1 Initial release of a new C-BOS document on May 16, 2005. Previously published on the Environmental Management System portion of the Johnson Controls Legal Connection website, as EMS 4.4.6.8 dated 12-22-04.
- 7-22-05 Page 3 of 3, updated #2 (JCI Internal Billing Reference) under Shipping Oil Samples.
  - 1-19-06 Page 3 of 3, added text to point #2 stating the lab is not responsible for shipping costs.
  - 3-24-06 Format changes from previous version dated 16 May 2005
  - 12-01-08 Format changes, added illustrations
  - 09-01-10 Format changes from previous version

## **4 INSTRUCTIONS**

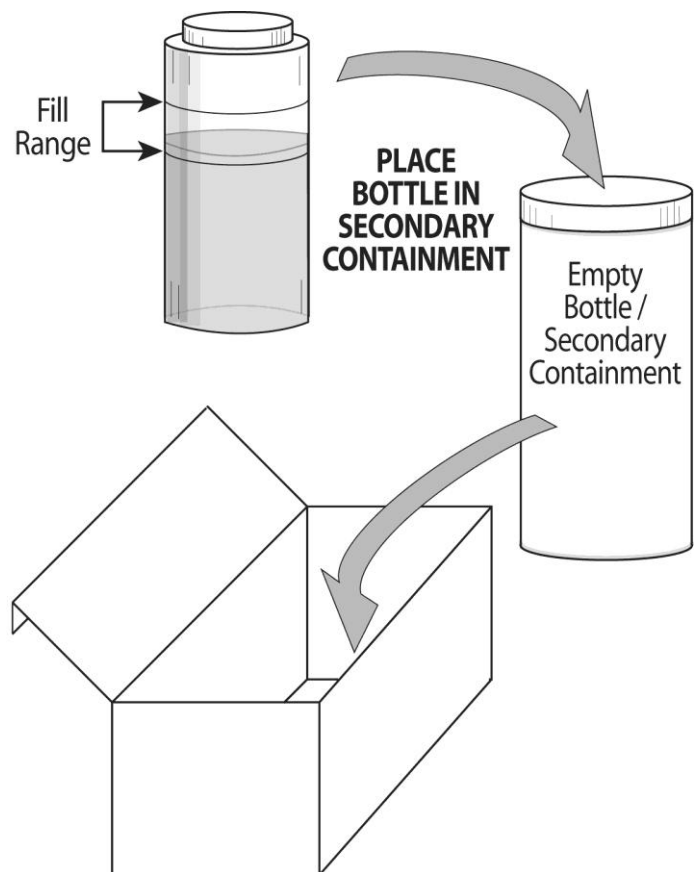
- 4.1 Collect samples while systems are operating at normal conditions. If this is not possible, obtain samples quickly after shutdown. If you collect a sample during annual maintenance and machine is not running, run the oil pump for 10 minutes with the sump heater on before collecting the sample.
- 4.2 Collect all samples upstream of the filter. If this is not possible, pull a sample from the oil sump while the machine is running. If sampling from the oil sump, make sure you flush the sample line thoroughly to avoid contaminants from the bottom of the sump. If another location is used, for sampling please write that on the label.
- 4.3 Use only sample bottles provided by the lab you are using. Do not use any random bottle; this could lead to leaky samples, inaccurate results and possible injury to the person who opens the package.
- 4.4 All fittings and sample bottles must be clean and dry. Take care not to contaminate the sample.
- 4.5 Include a copy of the machine nameplate if you have one to supply the lab with the proper ID and unit information.

## **5 EQUIPMENT LIST**

- 5.1 Sample kits from lab you are using;
- 5.2 Adjustable wrenches;
- 5.3 Purge container;
- 5.4 Electrical tape; and
- 5.5 Rag

## 6 SAMPLING STEPS

- 6.1 Locate the sample valve and place the purge container under the sample valve. For best results, connect a clean tube to the sample valve if a permanent tube is not installed.
- 6.2 Open the valve and drain off a small amount of oil into the purge container. Draining a small amount before taking the sample helps to avoid sample contamination.
- 6.3 Without closing the sample valve, replace the purge container with the sample bottle. **Fill the sample bottle to the line printed on the bottle (approximately  $\frac{3}{4}$  full).**
- 6.4 Carefully replace the sample bottle with the purge container and close the sample valve.
- 6.5 Replace the sample bottle cap.
- 6.6 Wipe the sample bottle clean with a rag.
- 6.7 **Using electrical tape, seal the cap completely around the bottleneck** to ensure that the cap cannot come off or leak.
- 6.8 Attach the correct label to the bottle for the machine being sampled. Fill in all information requested, including the date you collected the sample and the machine running hours. Check the label for accuracy; make any necessary changes.
- 6.9 **Place the oil sample bottle inside the larger plastic bottle.** The second bottle serves as secondary containment in the event the inner oil sample bottle leaks.
- 6.10 Send a copy of the nameplate form for the machine to ensure accurate labeling by the lab.



### 7 SHIPPING OIL SAMPLES



- 7.1 Box all the samples from each location.
- 7.2 Packaging - You will need a box that is DOT rated (one that has printed specification on the bottom).
- 7.3 Fill out the Air Waybill using the Table and Example found in Section 7.6 for guidance. A Shippers Declaration of Dangerous Goods Form is not required for an oil sample shipment. If there are other hazardous/regulated chemicals mixed in the oil, or you are shipping other hazardous chemicals, then please contact Corporate Environmental for additional guidance.
- 7.4 **IMPORTANT:** Send the samples within one day after you collect them to ensure an acceptable turnaround time for the reports.
- 7.5 Keep a copy of the shipping paperwork in your office files. Copies can also be used as a reference in case the samples do not reach the lab on time.
- 7.6 Use the table and the below example as a guide to fill out the Air waybill.

Section	Entry
①	Enter Date. Fill in the "Sender's FedEx Account Number" if it isn't already. Enter your name as sender and your cell or pager number. Enter your branch information.
②	Enter the Johnson Controls Internal Billing Reference (i.e. Branch (BRxxx), Service Order (xxx-xxxxxxx) or Contract (xxxx-xxxx) <b>Lab is not responsible for shipping costs</b>
③	Enter recipient's information if you have a contact at the lab. Fill in the address for the lab.
④	In sections 4a and 4b, make sure you check the correct box according to what type of service you would like to use to send the sample in. We suggest FedEx 2Day. Note: The faster the service, the more the shipping costs increase.
⑤	Check "Other" for Packaging.
⑥	Under the question that asks if the shipment contains Dangerous Goods, check the "No" box.
⑦	In the Payment section, check "Sender". Enter the "Total Packages" and the "Total Weight" of the packages in pounds and "NDV" in for Total Declared Value.
⑧	"Release Signature" Leave this blank.

## Sample Air Waybill

<b>Sample US Airbill</b>		8569 0041 8311	Form ID No. <b>0215</b>	<b>Sender's Copy</b>
<b>1 From</b> <small>Please print and press hard</small>		Date <b>01/01/XX</b>	Sender's Account Number <b>9999-9999-9</b>	
Sender's Name <b>John Doe</b> <b>1</b>		Phone <b>(555) 555-5555</b>		
Company <b>Johnson Controls, Inc.</b>				
Address <b>Office Address</b>		Dept./Floor/Suite/Room		
City <b>City</b>		State <b>ST</b>	ZIP <b>Zip Code</b>	
<b>2 Your Internal Billing Reference</b> <b>2</b>		First 24 characters will appear on invoice		
<b>3 To</b>		Recipient's Name <b>Contact Name</b> Phone <b>(555) 555-5555</b>		
Company <b>Laboratory Name</b>				
Recipient's Address <b>Laboratory Address</b> <b>3</b>		We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room		
Address		To request a package be held at a specific location, print address here.		
City <b>City</b>		State <b>ST</b>	ZIP <b>Zip Code</b>	
		<b>4a Express Package Service</b> <small>Packages up to 150 lbs.</small>		
		<input type="checkbox"/> Priority Overnight <small>Next business morning. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.</small>		
		<input type="checkbox"/> Standard Overnight <small>Next business afternoon. Saturday Delivery NOT available.</small>		
		<input type="checkbox"/> First Overnight <small>Earliest next business morning delivery to select locations. Saturday Delivery NOT available.</small>		
		<input checked="" type="checkbox"/> 2Day <small>Second business day. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected. Envelope rate not available. Minimum charge: One-pound rate.</small>		
		<input type="checkbox"/> Express Saver <small>Third business day. Saturday Delivery NOT available.</small> <b>4</b>		
		<b>4b Express Freight Service</b> <small>Packages over 150 lbs.</small>		
		<input type="checkbox"/> 1Day Freight* <small>Next business day. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.</small>		
		<input checked="" type="checkbox"/> 2Day Freight <small>Second business day. Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.</small>		
		<input type="checkbox"/> 3Day Freight <small>Third business day. Saturday Delivery NOT available.</small>		
		<b>5 Packaging</b>		
		<input type="checkbox"/> Envelope*		
		<input type="checkbox"/> Pak* <small>Includes Small Pak, Larger Pak, and Sturdy Pak.</small>		
		<input type="checkbox"/> Box <b>5</b>		
		<input type="checkbox"/> Tube		
		<input checked="" type="checkbox"/> Other <small>*Declared value limit \$500.</small>		
		<b>6 Special Handling</b> <small>Include address in Section 3.</small>		
		<input checked="" type="checkbox"/> SATURDAY Delivery <small>NOT Available for Second Overnight, First Overnight, Express Saver, or 2Day Freight.</small>		
		<input type="checkbox"/> HOLD Weekday <small>at Location NOT Available for First Overnight.</small>		
		<input type="checkbox"/> HOLD Saturday <small>at Location Available ONLY for Priority Overnight and 2Day to select locations.</small>		
		Does this shipment contain dangerous goods? <b>6</b>		
		<input checked="" type="checkbox"/> No <small>One box must be checked.</small>		
		<input type="checkbox"/> Yes <small>As per attached Shipper's Declaration.</small>		
		<input type="checkbox"/> Yes <small>Shipper's Declaration not required.</small>		
		<input type="checkbox"/> Dry Ice <small>Dry Ice, 9, UN 1845, _____ x _____ kg</small>		
		<input type="checkbox"/> Cargo Aircraft Only		
		<b>7 Payment</b> <small>Bill to:</small> Enter Acct. No. or Credit Card No. below.		
		<input checked="" type="checkbox"/> Sender <small>Acct. No. in Section 1 will be billed.</small>		
		<input type="checkbox"/> Recipient		
		<input type="checkbox"/> Third Party		
		<input type="checkbox"/> Credit Card		
		<input type="checkbox"/> Cash/Check		
		Acct. No. <b>7</b> Exp. Date		
		Credit Card No.		
		Total Packages <b>1</b> Total Weight <b>5 lbs.</b> Total Declared Value <sup>1</sup> \$ <b>NDV 00</b>		
		<small><sup>1</sup>Your liability is limited to \$100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current Service Guide, including terms that limit our liability.</small>		
		<b>8 NEW Residential Delivery Signature Options</b> <small>If you require a signature, check Direct or Indirect.</small>		
		<input type="checkbox"/> No Signature Required <small>Package may be left without obtaining a signature for delivery.</small>		
		<input type="checkbox"/> Direct Signature <small>Anyone at recipient's address may sign for delivery. Fee applies.</small> <b>8</b>		
		<input type="checkbox"/> Indirect Signature <small>If no one is available at recipient's address, anyone at a neighboring address may sign for delivery. Fee applies.</small>		
		<b>519</b>		