

AUDIT REPORT

WINTER PREPAREDNESS

SECTION 1 : AUDIT DETAILS

AUDIT DATE:	Nov 20 2012	AUDIT REPORT #:	PA19 - 13/13-01
AUDIT TIME:	1:30 PM		
SERVICE AREA:	SA 19 - FORT GEORGE	CONTRACTOR:	YRB (FORT GEORGE)
AUDIT TOPIC:	WINTER PREPAREDNESS		

SECTION 2 : ATTENDANCE REGISTER

NAME:	TITLE:
KAREN ANDREWS	AREA MANAGER
CATHY MELENKA	DISTRICT OPS. TECH
CHRIS THORNHILL	AREA MANAGER

SECTION 3 : RECORDS REVIEW / FINDINGS

EQUIPMENT

QUESTION #1:

When did the contractor switch to a Winter Shift Schedule? When was 100% of equipment ready for the winter season?

QUESTION #2:

What process was followed to ensure equipment readiness?

QUESTION #3:

Has the calibration of salt/sand spreaders, thermometers, and temperature guns been completed?

QUESTION #4:

Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

EVIDENCE PROVIDED:

Sufficiently answered questions 1-4. Provided November 1, 2012 Internal Audit (YRBFG - 10-12) which included September 10, 2012 "Winter Preparedness meeting minutes" covering equipment preparations, weather services, crew lists, communications between MoTI and winter prep, salt and chemical supply and storage. October 21, 2012 - winter shift schedule implemented. Provided spreadsheet with listing equipment units noted dates each unit ready and licensed for winter (100% of equipment ready on November 1, including spares - majority ready by October 26th, 2012. (Equipment spreadsheet included in Internal Winter Audit.) Provided spreadsheet showing calibration and inspection of temp gauges completed Feb 14, 2012 - s.17; left which will be done next week. (Provided Sander Calibration Procedure Checklist) Provided equipment location list, identifying units at each location and spares - including s.17; s.21

Noted operational change with the mechanical shop being open on the weekends. Have a shop call out list and hired equipment list.

MATERIALS

QUESTION #5:

Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

QUESTION #6:

How will the contractor ensure a continual supply of salt this winter?

QUESTION #7:

Are the chemicals being used by the contractor on the recognized product list(or approved by the province)?

QUESTION #8:

Are adequate supplies of sand on hand at various locations?

QUESTION #9:

How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

QUESTION #10:

Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded?

EVIDENCE PROVIDED:

Sufficiently answered questions 5 -10. Provided spread sheet with location of stockpiles, targets, remaining quantities, production or purchase for 2012/2013. Locations of ore wet. salt and anti -icing chemicals identified. Beal full of salt as back up. Conv of email to the

Sufficiently answered questions 5 -10. Provided spread sheet with location of stockpiles, targets, remaining quantities, production or purchase for 2012/2013. Locations of pre wet, salt and anti -icing chemicals identified. Beal full of salt as back up. Copy of email to the District Manager and District Operations Manager regarding stockpiled winter abrasives and salt suppliers confirmation that they are not anticipating any supply issues over the winter.s.17; s.21 storage tank full. YRB operation manager has contacted other suppliers to confirm availability as back up. Provided certificate that salt meets gradation specifications and anti icer meets concentration specifications. Provided materials testing results for Winter sand stockpiles- all within specification.

HUMAN RESOURCES

QUESTION #11:

How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

QUESTION #12:

Have all employees, including new hires, received winter orientation training?

QUESTION #13:

Explain what the training covers. Is the training comprehensive?

EVIDENCE PROVIDED:

Sufficiently answered questions 11-13. Have winter shift positions filled in advance of winter - if there is a vacancy the shift is covered by overtime. Provided shift schedules and overtime rotation sheet. Have staff from other positions that can also drive if needed. Provided agenda of pre winter meetings that at are held with each crew (all staff). QC manager also goes through winter procedures/ Work Instructions with all crews; each Foreman signs off/ all crew members sign off on work instructions. Provided truck procedures check list signed off by employees. Provided check sheet of wing plow training and actual plowing techniques signed by the driver - follow up required. Internal in process audits completed to follow up on new employees.

EXTERNAL COMMUNICATIONS

QUESTION #14:

Have pre-winter stakeholder meetings been held?

QUESTION #15:

Were any winter operational changes considered as a result of stakeholder concerns/complaints?

QUESTION #16:

Has the contractor consulted with the school districts to get an updated list of school bus routes?

EVIDENCE PROVIDED:

Sufficiently answered questions 14-16. Pre-Winter Stakeholder meeting held October 23, 2012 (PG) Mackenzie stakeholder meeting October 26/ 2012. Has consulted with Bus company and updated the information books in each unit which identify bus routes and priority bus routes as well as new inventory changes. Ops Manager meeting with Forestry re certain north hauls. Operational changes - can now have a grader/ equipment operator on each shift in Slim Creek Area

INTERNAL COMMUNICATIONS

QUESTION #17:

Have winter operational or school bus route changes been communicated to the operators?

QUESTION #18:

If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

EVIDENCE PROVIDED:

Sufficiently answered questions 17-18. Provided Hwy Patrol sheets. Has consulted with Bus company and updated the information books in each unit which identify bus routes and priority bus routes as well as new inventory changes.

SECTION 4 : AUDIT SUMMARY/FOLLOW UP

WAS THE CONTRACTOR IN CONFORMANCE?

YES

WAS A NCR/OFI ISSUED?

if "yes" fill out Section 5 below

IS A FOLLOW-UP NEEDED?

NO

IF YES, WHAT FOR?

SECTION 5 : NCR/OFI SUMMARY

<i>MAINTENANCE SPEC FOR NCR/OFI</i>	<i>NCR /</i>	<i>NCR/OFI #</i>	<i>DATE ISSUED</i>	<i>COMMENTS</i>

SECTION 1: AUDIT DETAILS

Audit Report #:
PA 20-12/13-02

Service Area: SA20 - Robson

Name of Contractor: Click to choose MC

Audit Date: March 17, 2010

Date Discussed with MC: October 24, 2012

Auditor: Greg Bruce

Auditor Signature

Attendee Register:

Name

Rod Saul
John Traquier
Brian Taphorn

Position

Quality Assurance Manager
Operations Manager
Mechanical Supervisor

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

Contractor appears to be prepared for winter season.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

NOTE: This is intended to be a comprehensive audit. All of the questions must be asked unless noted otherwise.

RESOURCES

Equipment:

1. **What percent of the contractor's equipment is ready for the winter season? When will it be 100%?**
 - 95% of equipment is ready for winter season

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- All equipment is winter season ready with the exception of the wings being installed on s.17; s.21
- Still need to install wings on s.17; s.21 has wing. The other graders have been doing construction and still have wobbly packers, but changeover will occur prior to November 15. s.17; s.21 will have wing ready grader by November 1. Currently the s.17; s.21 that is wing equipped is in s.17; s.21 and will travel to other foreman areas as needed.
- s.17; s.21 Plows fully equipped
 - s.17; s.21 – s.17 with wings and s.17; with extended underbodies
 - s.17; s.21 – with wing plow
 - s.17; s.21 – Test Unit with extendable underbody and enhanced material distribution
 - s.17; s.21 at s.17; s.21
 - s.17; s.21 at s.17; s.21
 - s.17; s.21 (still requires wing to be installed – as above)
- s.17; s.21 Plows fully equipped
 - s.17; s.21 – s.17; with wings and s.17; extended underbody
 - s.17; s.21 – s.17; with extended underbodies
 - s.17; s.21 – with wing plow
 - s.17; s.21 – s.17; with wings s.17; spare to be relocated to s.17; s.21
 - s.17; s.21 at s.17; s.21
 - s.17; s.21 at s.17; s.21
- s.17; s.21 Plows fully equipped
 - s.17; s.21 – s.17 with wing s.17; with extended underbodies
 - s.17; s.21 – with extended underbody
 - s.17; s.21 (still requires wing to be installed – as above)
 - s.17; s.21 in s.17; s.21
 - s.17; s.21 at s.17; s.21
 - s.17; s.21 in s.17; s.21
 - s.17; s.21 in s.17; s.21

2. What process was followed to ensure equipment readiness?

- Mechanical Shift Situation Reports used from September to current scheduling mechanics work and establishing priorities.
- Equipment Preparedness Log requires supervisor sign off showing work completed

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

- Calibration of sand/salt spreaders is complete and verification of accuracy is in process
- Calibration of thermometers and temperature guns has been completed and is part of Equipment Readiness Log

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

Findings:

- s.17; s.21 that exceeds QMS requirements located currently in s.17; s.21 and being moved to s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- s.17; s.21 that exceed QMS requirements – s.17; s.21 in s.17; s.21 and s.17; s.21 n s.17; s.21
- There are s.17; s.21 and QMS shows s.17; s.21 so surplus equipment is already mobilized
- s.17; s.21 available to supplement fleet – reviewed hired equipment seniority list

Evidence – Records reviewed:

- Hired Equipment Seniority List
- QMS
- Hired Equipment Rental Agreements

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

- s.17; s.21
- s.17; s.21
- s.17; s.21
- s.17; s.21 have been shipped from supplier (s.17; s.21 on siding in Valemount and s.17; s.21 enroute)
- s.17; s.21

6. How will the contractor ensure a continual supply of salt this winter?

- Contractor is utilizing suppliers railway siding for backup of material. As rail cars are emptied and released the contractor immediately orders more product.
- Reviewed email between contractor and supplier that ensures sufficient supply available
- Contractor has agreement with secondary supplier for emergency supply

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

- s.17; s.21 – s.17; s.21 - Compliant
- Product Data Sheet for s.17; s.21 showing chemical analysis - Compliant

8. Are adequate supplies of sand on hand at various locations?

- s.17; s.21
 - s.17; s.21 survey document reviewed
 - s.17; s.21 invoiced but not surveyed yet
- s.17; s.21
 - s.17; s.21 unsurveyed
- s.17; s.21
 - s.17; s.21 survey document reviewed
 - s.17; s.21 – none on hand
- s.17; s.21
 - s.17; s.21 Survey document reviewed
 - s.17; s.21 unsurveyed
- s.17; s.21
 - s.17; s.21
 - s.17; s.21 – none
- s.17; s.21
 - s.17; s.21 unsurveyed

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- s.17; s.21
 - s.17; s.21
 - s.17; s.21
 - s.17; s.21
 - s.17; s.21
 - s.17; s.21
 - s.17; s.21
- Survey document reviewed
unsurveyed
- unsurveyed
- survey document reviewed

9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

- QMS has given guideline of salt locations and quantities
- Historical records reviewed to provide analysis of salt usage

10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Findings:

- Reviewed sieve analysis for all pits and particle sizes are all less than 12.5
- Variance given by the district for contractor to fall outside banana on fines only

Evidence – Records reviewed:

- Sieve Analysis Reports for all active aggregate stockpiles

HUMAN RESOURCES:

11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

- Full complement of crew in all three foreman areas
- As and whens available in all three foreman areas
- Staffing levels are according to QMS
- Currently 24hr coverage in all three foreman areas
- Modified winter shift commences October 26 and full winter shift start to be determined

12. Have all employees, including new hires, received winter orientation training

- All employees have received winter orientation training as of October 22, 2012

13. What does the training cover? Is the training comprehensive?

Findings:

- Records support thorough winter training program

Evidence – Records reviewed:

- Winter Training Agenda 2012/2013
- Minutes from the three foreman areas
- Training Check List for New Hires
- Employee Evaluation Checklist for all employees

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

- All foreman areas have held stakeholder meetings with good attendance and ministry presence at all three.

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

- In s.17; s.21 school bus route was modified at the request of the SD57 bus supervisor
- In s.17; s.21 VARDA requested contractor to update them when lots are snowed in and if a windrow is preventing access if contractor could open access to prevent traffic backups onto the highway.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

Findings:

- Contractor has constant contact with school bus supervisor
- Contractor has minutes from s.17; s.21 stakeholder meeting that show request for a change of service to reflect an upcoming minor change to the school bus route

Evidence – Records reviewed:

- Stakeholder Meeting minutes

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

- Compliant – Winter Training document shows discussion. Bus route runs and times of bus travel document reviewed.

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

Findings:

No changes this year

Evidence – Records reviewed:

Winter Training document

WHERE APPLICABLE:

19. Has avalanche training been delivered?

- Training is every 2 years last delivery was October 2011. Untrained operators not allowed to work in areas with avalanche hazards.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

20. Have avalanche signs been erected?

- Direction from MOT area manager is to erect by mid November. Additionally the ministry has requested stop signs and road closed signs be installed on avalanche gates – work to be completed when traffic control and crews are working in area.

21. Have avalanche gates been checked to ensure they are functional?

Findings: Gates are newly rebuilt and are all functional.

Evidence – Records reviewed:

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Date accepted by MOT: [Click here to enter a date.](#)

Initials: _____

SECTION 4: NCR/OFI ISSUED

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 1: AUDIT DETAILS

Audit Report #: SP-13-002W

Service Area: SA21 - South Peace

Name of Contractor: Caribou Rd Services

Audit Date: October 15, 2012

Date Discussed with MC: October 15, 2012

Auditor: Tammy Anderson

Tammy Anderson

Auditor Signature

Attendee Register:

Name

Dean Daniels
Maria Butts
Tammy Anderson
Rob Defelice
Blaine Larson
Shelley Fulmes
Eric Chapman
Ken Oakley

Position

MoT Operations Manager
Area Manger, Roads
District Operations Tech
Area Manager, Bridges
Area Manager, Bridges TELP
Quality Manager
CRS Operations Manager
Assistant Operations Manager

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

CRS demonstrates consistency with QMS for questions 2-21. Room for improvement for question 1 to ensure a more proactive response to internal QMS and operation deliverables.

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

RESOURCES

Equipment:

1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

- Spreadsheet noting equipment is 81% ready to date. They will be 94% by Friday and hope to be at 100% by next Tuesday.
 - ☐ s.17; s.21
 - ☐ s.17; s.21
 - ☐ s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

2. What process was followed to ensure equipment readiness?

- Winter Equipment Checklist:
Unit TA507 – Sept. 24/12
 - o All checked off
 - o Dicky John operational and calibrated:
 - s.17; s.21
 - s.17; s.21
- Unit TA508** – Sept. 17/12
- Supervisors' meeting minutes dated Sept 20/12; noting discussion of equipment changeover.

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

- Winter Equipment Checklist:
Unit TA507 – Sept. 24/12
 - All checked off
 - Dicky John operational and calibrated:
 - s.17; s.21
 - s.17; s.21
- Supervisor meeting minutes dated Aug.31/1; calibration noted on winter equipment checklists
- Equipment Manager runs test on 10% of fleet to ensure calibrations are accurate
- Winter changeover sheet on equipment
- Calibration data sheet
 - Unit SA971 953 – dated Oct. 5/12
- Compare temp data in equipment to RWIS sites on highway. Comparison sheet dated Oct.2/12 test done for Puker in s.17; s.21

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

Findings: CRS shows that they are mostly ready for winter. Question 1 shows there are room for improvement for equipment readiness.

Evidence – Records reviewed:

- Equipment spreadsheet indicates they have^{s.17; s.21}
s.17;
- 6 days a week work schedule for mechanics (Monday – Saturday) in both^{s.17; s.21} and in^{s.17; s.21}.
- Moved one mechanic from^{s.17; s.21} for winter
- Subcontractor and hired equipment list – use these in the event of equipment shortage (mostly graders)
 - o s.22
 - o s.22
 - o s.22
 - o s.22

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- s.22
 - s.22
- Supervisor meeting minutes on Sept. 27/12 in regards to hired equipment
- Email from CRS superintendent in s.17; s.21 to quality manager on Oct 12/12 indicating equipment availability.

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

- Inventory print out for s.17; s.21 at various locations:
 - s.17; s.21
 -
 -
 -
 -

6. How will the contractor ensure a continual supply of salt this winter?

- Monitor inventory twice a month and submitted by foreman
- Agenda items on weekly operations meetings
- 1 person in charge of ordering supplies

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

- Recognized product lists from Oct 1st 2009 edition, which notes s.17; s.21 on list
- Sept. 19/12 quote from s.17; s.21
- s.17; s.21 material safety data sheet for s.17; s.21
- Oct. 3/12 bill of lading from s.17; s.21

8. Are adequate supplies of sand on hand at various locations?

- Spreadsheet for sand inventory for each site. Spreadsheet shows locations, quantity used in previous winter, quantity needed, production required to start winter season, etc

9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

- Map overview of SA 12 for locations of s.17; s.21
 - s.1 salt shed locations
 - s.17; s.21
 - s.17; s.21
- Locations of each shed is based on s.17; s.21

10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

- Sieve analysis report from s.17; s.21
 - s.17; s.21
 - s.17; s.21
 - s.17; s.21
 - s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- s.17; s.21
-
-
-

Findings:

CRS appears to have sufficient inventory, which is on recognized product lists, at all locations. Inventory will be monitored twice a month, with one person in charge of orderings. s.17; s.21

Evidence – Records reviewed:

- Maps
- Sieve reports
- Spreadsheets for inventory

HUMAN RESOURCES:

11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

- Rental agreement between CRS and s.17; s.21
s.17; s.21
- Schedules for s.17; s.21 noting D
and A shifts, date, employee.
- Dawson Creek Daily News Advertising invoice for August 2012

12. Have all employees, including new hires, received winter orientation training

- Email dated Oct. 11/12 from CRS HSE and training officer to operations manager and quality manager regarding winter awareness reference card. Noting first winter awareness training completed in s.17; s.21
- Orientation and training records dated Oct 11/12 for 5 employees (which noted that winter awareness training was completed)

13. What does the training cover? Is the training comprehensive?

- Training course is 3.5 hrs and has a quiz at the end
 - Course material covers:
 - Drifting snow
 - Truck vs grader
 - Obstacles
 - Responsibilities
 - Bridges
 - Sanding
 - Salting
 - Review of work method 310

Findings:

Training covers winter maintenance concerns. It appears that training for winter season started before October 15th and is detailed.

Evidence – Records reviewed:

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- Training records
- Emails
- Invoices
- Rental agreement

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

- Scheduled for November in s.17; s.21
- Possible meeting at s.17; s.21 if necessary (usually every 2 years)

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

- Nothing this year but still talk with stakeholder on a ongoing basis

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

- Emails with updates from School Bus Garage (School District 59)
 - o Sept 7/12 from School bus garage to superintendent nothing school calendar
 - o Oct 11/12 noting road change list for 2012/2013 (new roads and roads that are no longer bus routes)

Findings:

CRS is in contact with stakeholders (IE: School District 59) on a regular basis.

Evidence – Records reviewed:

- Emails

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

- Email, dated Oct 5/12, from quality manager to road foreman indicating truck beats in each area
- Map of bus routes that is handed to each operator

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

- Yes.

Findings:

CRS keeps road foreman's update with changes to bus routes

Evidence – Records reviewed:

- Emails

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- Maps

WHERE APPLICABLE:

19. Has avalanche training been delivered?

- Email, dated Oct 11/12 from Avalanche Tech/Weather Network Program Manager in regards to training at s.17; s.21 on Oct. 30/12
- Email, dated from Sept 28/12, from Assistant Operations Manager to Bear Mountaineering training for Nov. 12/12 for Pine Pass
- Registration Confirmation email from Resource and Transportation Industry Avalanche Management for Dec 12 – 14/12

20. Have avalanche signs been erected?

- Pictures (dated Oct 2/12) of avalanche signs that are erected throughout the pine pass
- Sign at s.17; s.21 with avalanche condition rating

21. Have avalanche gates been checked to ensure they are functional?

- No avalanche gates in area

Findings:

It appears that training has not been, but is scheduled for Oct 30/12, Nov 12/12 and Dec 12-14/12.

Evidence – Records reviewed:

- Emails
- Pictures

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Date accepted by MOT: [Click here to enter a date.](#)

Initials: _____

SECTION 4: NCR/OFI ISSUED

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 1 : AUDIT DETAILS

AUDIT DATE:	Nov 20 2012	AUDIT REPORT #:	PA 23-12/13-01
AUDIT TIME:	945 am		
SERVICE AREA:	SA 23 - NECHAKO	CONTRACTOR:	YRB (VANDERHOOF)
AUDIT TOPIC:	WINTER MAINTENANCE PROCESS		

SECTION 2 : ATTENDANCE REGISTER

NAME:	TITLE:
TOM LUPTON	AREA MANAGER
BRIAN TAYLOR	BRIDGE AREA MANAGER
MIKE SVENSEN	OPERATIONS MANAGER
DIDIER BRARD	GENERAL MANAGER

SECTION 3 : RECORDS REVIEW / FINDINGS

EQUIPMENT

QUESTION #1:

When did the contractor switch to a Winter Shift Schedule? When was 100% of equipment ready for the winter season?

QUESTION #2:

What process was followed to ensure equipment readiness?

QUESTION #3:

Has the calibration of salt/sand spreaders, thermometers, and temperature guns been completed?

QUESTION #4:

Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

EVIDENCE PROVIDED:

1) YRB VH's winter shift stated on October 28, 2012. 100% of the equipment was ready on Nov 12, 2012. 2) provided evidence that all equipment had been check during summer, ,to ensure that it works properly. Provided winter equipment prep spreadsheet, and hand written sheet with equipment number (sanders, plows, underbodies) and corresponding checks. 3) s.22 (mechanical foreman) provided list of units and calibration numbers. Dickie John manual was provided, with procedures listed. Mechanic go through process, to calibrate sander unit close to last years numbers. New units are calibrated, mechanics spin off load in the yard, and amounts measure, but no documentation. Thermometers are compared to temp guns in the shop. Pickup trucks are not checked. 4) Their back up strategy is that they have more trucks in the VH area, so if one breaks down in Fraser lk or FS James, they have extras in VH to send there, or is one comes in for repair, they take back a spare or extra truck. YRB has a list of graders in area to call on if needed. Mechanics work 24 shifts if required for getting equipment back up as soon as possible.

MATERIALS

QUESTION #5:

Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

QUESTION #6:

How will the contractor ensure a continual supply of salt this winter?

QUESTION #7:

Are the chemicals being used by the contractor on the recognized product list(or approved by the province)?

QUESTION #8:

Are adequate supplies of sand on hand at various locations?

QUESTION #9:

How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

QUESTION #10:

Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded?

EVIDENCE PROVIDED:

5) YRB VH does not use de-icing liquids, only salt. YRB has s.17; s.21 Correspondence with supplier was provided, with quantities need, delivered to date, and follow up to ensure that enough was ordered and received. s.17; s.21 will be topped up if

needed during the year. s.17; s.21 is set up as local supplier, and has reserve if needed. 6) Provided emails btm s.22 at s.17; dated Oct 16, Nov 16, and Nov 21, 2012, regarding ordered quantities, received quantities and top up abilities if YRB needs more during year. original quantities in each shed are from historical amount used. 7) Approved product list was provided, and certification sheet that shows that salt is good. Letter was from Kleysen, dated Nov 19, 2012. 8) Based on history, YRB VH has s.17; s.21 at s.17; s.21 s.17; s.21 at s.17; s.21 s.17; s.21 at s.17; s.21 and s.17; s.21 on the s.17; s.21 these numbers are about 40-50% more than typically used. 9) Quantities are based on historical typical use in each area. 10) YRB provided sieve analysis for s.17; s.21 in 2009 and s.17; s.21 in 2011, all test showed as meeting MoTI Spec.

HUMAN RESOURCES

QUESTION #11:

How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

QUESTION #12:

Have all employees, including new hires, received winter orientation training?

QUESTION #13:

Explain what the training covers. Is the training comprehensive?

EVIDENCE PROVIDED:

11) YRB VH showed shift schedules for all 3 area, showing that shifts were filled up, as well as provided names of 5 extras (1 in FL, 2 in FSJ, and 2 in VH) that are former employees that are available to fill in if needed. 12/13) YRB provided new hire check list (work instruction, materials, pre trip, yards locations, communications, and safety). YRB showed 1 new hire this year, had new hire training, ride along training, and follow up training. Not all seasoned employees get re trained. YRB provided spreadsheet query, to ensure that all staff had gone through Work Instruction training. Random select employees get reviewed during internal audit.

EXTERNAL COMMUNICATIONS

QUESTION #14:

Have pre-winter stakeholder meetings been held?

QUESTION #15:

Were any winter operational changes considered as a result of stakeholder concerns/complaints?

QUESTION #16:

Has the contractor consulted with the school districts to get an updated list of school bus routes?

EVIDENCE PROVIDED:

14) Winter stakeholder meeting was held on October 30, 2012. YRB VH attended both neighbouring contractors winter meeting as well, PG and Burns lake. 15) No specific changes made from complaints, but YRB consults with local hauling industries, to see where haul are going to happen, and adjust plowing to suite. 16) YRB provided journal notes from Oct 18, 2012, from s.22 and s.22 (SD91) about change to school bus routes. YRB provided maps to show route for operators and any changes are made to them. YRB showed updated lists of Pro D days and holidays, when buses will not be on the road, for operators.

INTERNAL COMMUNICATIONS

QUESTION #17:

Have winter operational or school bus route changes been communicated to the operators?

QUESTION #18:

If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

EVIDENCE PROVIDED:

17) see answer 16 above. 18) No article 6 updates have been done this year, but in the past, updates have been detailed on maps that operators review, foreman ass to instructions for operators, and road list are updated.

SECTION 4 : AUDIT SUMMARY/FOLLOW UP

WAS THE CONTRACTOR IN CONFORMANCE?

YES

WAS A NCR/OFI ISSUED?

if "yes" fill out Section 5 below

IS A FOLLOW-UP NEEDED?

NO

IF YES, WHAT FOR?

SECTION 5 : NCR/OFI SUMMARY

<i>MAINTENANCE SPEC FOR NCR/OFI</i>	<i>NCR /</i>	<i>NCR/OFI #</i>	<i>DATE ISSUED</i>	<i>COMMENTS</i>

SECTION 1: AUDIT DETAILS

Audit Report #: Winter 12-13 #O1

Service Area: SA24 - Lakes

Name of Contractor: Lakes District Maint

Audit Date: October 31, 2012

Date Discussed with MC: October 31, 2012

Auditor: Cam Schley

Cam Schley

Auditor Signature

Attendee Register:

Name

Cam Schley, Ops Mgr, MoTI
Brad Boyden, A/Area Manager, MoTI
Marlene Keehn, DOT/Area Mgr MoTI
Steve Gailing, Ops Mgr, LDM
John Powers, QC Planning Mgr, LDM

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

LDM provided sufficient documentation, showing that resources are being readied for winter, materials are in place, staff have been hired (auxiliary as & when), staff have been trained and that winter stakeholder meetings have been held.

Attachments

None

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

NOTE: This is intended to be a comprehensive audit. All of the questions must be asked unless noted otherwise.

RESOURCES

Equipment:

1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

95% - 100%, currently two pieces down, minor repairs, as of Oct 30, everything was up and ready. Last wing put on on 29th. Rad leak, flat tire, then will be 100%. (mtce breakdowns)

2. What process was followed to ensure equipment readiness?

Area Mgr meeting agenda topic discussed process and equip changeovers, repairs. Mech staff complete a weekly mtce schedule, all issues listed, and status of repairs. This is sent to Ops Mgr weekly – dates from Sep 24-Oct 22

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

Not all calibration has been completed. – Nov 15th plan to have rest completed.

2012 – new units – s.17; s.21

Road testing follow up, shows that usage and settings are working ok, but will be following up. Takes 4 hrs to do one unit.

Process: Older macs, once settings input, set computers to the settings, s/b ok. Salt usages being submitted today to Ops Mgr then will compare to km driven. Older units - #'s so far show working ok, but will continue to check each unit as opp permits.

Thermometers/guns – have been checked for accuracy.

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

Local hired equip contractors - s.22

Logging contractors QA Plan Mgr has local logging contacts that will be contacted as needed. 2 major contractors work for mills and are fully insured and geared up. HE owner will be called when snowfall forecasted. LDM has touched based with some.

s.17; s.21 not in rotation can be used when needed.

FM areas share – s.17; s.21 equip helped Burns area last weekend.

Findings:

LDM has documented evidence showing that equipment is prepared and calibrated for the upcoming winter season; also in place is a hired equipment list in the event of unforeseen challenges.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Evidence – Records reviewed:

- Bi-weekly mtce sched from Mech staff (Oct 22/12 to Sep 24/12) – equip listed, issues and status of repairs – feeds into...
- Ops Mgr Spreadsheet SA24 Winter Preparedness (Oct 29/12)
- Area Mgr Mtg Sep 21 agenda – winter preparedness topic.
- Area Mgr Mtg Aug 24 agenda – upcoming training, winter prep, underbody & front plows
- Calibration form Oct 18/12 – Unit 1102 (1101 and 1103 set to same)
- Calibration records from 2010 – units set as per previous years.
- Hired Equipment Callout 2010 – 4 subcontractors listed –s.17; s.21

Materials:

5. **Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?**
s.17; s.21 in s.17; s.21 , s.17; s.21 in s.17; s.21
6. **How will the contractor ensure a continual supply of salt this winter?**
Historic amount in stockpiles, plus additional ½ car in s.17; s.21 s.17; s.21 stocks s.17; s.21 on hand
7. **Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?**
Ordered from s.17; s.21 spec statement, and tested for particle size
8. **Are adequate supplies of sand on hand at various locations?**
Yards and pits will have historical volumes, material readily available at s.17; s.21 -
gaining / Still hauling to the yards.
9. **How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?**
Historical volumes, plus s.17; s.21 in s.17; s.21 area for this winter. s.17; s.21 is
standard volume.
10. **Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.**
Winter sand – s.17; s.21 – rescreened it all. LDM is re-screening from s.17; s.21 through stacker as it
is hauled to s.17; s.21 Samples are being taken and sent for testing, but everything is
passing so far.

Findings:

LDM has documented evidence showing most materials and products to be used meet MoT spec. LDM produced documented evidence showing adequate locations and volumes of salt/sand within each of the Foreman areas, also that this information has been passed on to MoT. LDM will be following up for variance for winter sand that has not met spec.

Evidence – Records reviewed:

Pre winter inventory spreadsheet, shows sand, salt, agg levels at various yards and pits
s.17; s.21 – s.17; s.21 – still hauling to yards
Yards s.17; s.21 s.17; s.21 s.17; s.21 – still hauling to yard
Product spec from s.17; s.21 for s.17; s.21
Salt meets spec re: gradation, moisture and chem. Anal – Oct 30/12

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Winter sand tests provided previously – oversized material noted, all material being re-screened and sampled often. Material high on gradation for fines – will address “blow off” with application rates – variance requested.

LDM will send test results of latest samples to MoTI

HUMAN RESOURCES:

11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

Advertising since mid-summer, all shifts filled. Would like more casuals for Burns Lk, resumes on hand, but not locked in for aux. OT hasn't been issue in past, storm on Oct 27-28, no issues with manpower working extra shifts, etc. s.17; s.21

lists.

s.17; s.21 s.17; s.21

(shifts have: s.17; s.21

17; s.21

s.17; s.21

12. Have all employees, including new hires, received winter orientation training

Yes,

s.17; s.21 sign-up sheet not avail. LDM to send copy of s.17; s.21 Sign-up sheet

13. What does the training cover? Is the training comprehensive?

Safety policy & procedures, plowing, sanding, salting, pre-wetting, winter grading, communications, equipment & shop mtce, work reporting, road condition reporting, deployment, bus routes. Sessions also included practical re: chains, installing front plows, pre-trip checks, etc.

Findings:

LDM provided documented evidence showing employee lists in all Foreman areas and that active recruitment is on-going; also all staff has received comprehensive winter orientation training including training dealing with emergency response.

Evidence – Records reviewed:

Seniority List – Oct 6/12

Winter Shift Sched Oct 2012 s.17; s.21

Winter Shift Sched Nov 2012

Shifts: 5-12:30, 2:30-11, with offset shifts by some

s.17; s.21ake, Sign up sheets Oct 19/12

Sign up sheets (no date), notes from training (Oct 25, 2012)

Winter Training Agenda package (used in all yards)

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

s.17; s.21 (no attendees in past) Agenda, process, equipment and manpower updates.

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

Issue raised lights on rear of plow truck not visible once snow covered – LDM looking into it
Some consideration for special residents s.17; s.21 to “not plow them in” (reverse plowing) where safe to do so.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

Meeting SD91 this afternoon to discuss routes, concerns
Meeting s.17; s.21 area school district on Friday.

Findings:

LDM has provided sufficient evidence to show correspondence with major stakeholders is taking place and meetings are being scheduled.

Evidence – Records reviewed:

s.17; s.21 Attendance Record Oct 17, 12
Attendance Record Oct 17, 12
s.17; s.21 Attendance Record Oct 16, 12
Stakeholder Meeting Agenda and Notes from meetings

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

Yes, in winter training

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

na

Findings:

LDM has shown sufficient evidence to show that internal communications are occurring or will be occurring in respect to operational/school bus changes.

Evidence – Records reviewed:

Winter Training Agenda package (used in all yards)

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

19. What are typical levels of equipment in each yard

s.17; s.21

s.17; s.21

s.17; s.21

Findings:

LDM has shown levels of equipment in each yard for current upcoming winter.

Evidence – Records reviewed:

Equipment Manifest

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

- LDM will send test results of latest samples of ^{s.17; s.21} and ^{s.17; s.21} sand to MoTI
-ongoing
- LDM to send copy of ^{s.17; s.21} training session Sign up sheet
-LDM Ops Manager sent this document Nov. 5, 2012
- MoTI Ops Mgr will set up meetings with LDM staff & local RCMP detachments
-RCMP detachment meetings occurred Nov. 15, 2012 ^{s.17; s.21} and Nov. 27, 2012
^{s.17; s.21}

Date accepted by MOT: November 27, 2012

Initials: CS

SECTION 4: NCR/OFI ISSUED

None

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 1: AUDIT DETAILS

Audit Report #: Winter 12-13 #01

Service Area: SA25 - Bulkley Nass

Name of Contractor: Billabong Rd & Bridge

Audit Date: October 10, 2012

Date Discussed with MC: October 10, 2012

Auditor: Cam Schley

Cam Schley
Auditor Signature

Attendee Register:

Name

Audrey Barbier
Peter Martens
Cam Schley
Brad Boyden
Matt Foley

Position

QA/Ops Coordinator, Billabong
Ops Manager, Billabong
Ops Manager, MOTI
Ops Tech., MOTI
Ops Tech., MOTI

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

BRBM has provided sufficient evidence to demonstrate reasonable steps have been taken to prepare for the upcoming winter season.

Attachments

none

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

NOTE: This is intended to be a comprehensive audit. All of the questions must be asked unless noted otherwise.

RESOURCES

Equipment:

1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

s.17; s.21 s.17; with wing-s.17; s.21), Nov.15th all graders will be ready. Trucks will be ready by Oct.31st s.17; s.21 , s.17; s.21 , s.17; s.21 , s.17; s.21 in each area. 6 loaders s.17; s.21), s.17; s.21 , s.17; s.21 equipment – on or before Oct 4th
☐ s.17; s.21
☐ s.17; s.21
s.17; s.21

In process for completed units. Mechanical test and adjustments are completed. Field test is conducted to confirm calibration.

2. What process was followed to ensure equipment readiness?

Start winter prep in spring. Mechanical super prepares winter prep schedule and works to complete all necessary work on a priority basis.

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

Sand/salt calibration for vehicles^{s.17; s.21} completed. The remaining are on-going. Temperature guns or thermometers - if equipment becomes defective over time, it is fixed or replaced.

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

Actively seeking hired equipment. In process of preparing contracts. Ability to move in house equipment where/when needed. As per QMS / Hired Equipment lists / shuffle equipment from other foreman areas if possible.

Evidence – Records reviewed:

1. Attached email from Peter Marten, Winter Shop prep excel SS.
2. Winter Equip Readiness checklist. BRBM Shops Winter Prep 2012 Excel SS.
3. 4 pages NNC Sand/ Salt Truck Calibration- Closed Loop documents.
4. Hired Equipment advertisement. Interior News Sept. 26, 2012

Findings:

BRBM has documented evidence showing that equipment is prepared and calibrated for the upcoming winter season; also in place is a hired equipment list in the event of unforeseen challenges.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

s.17; s.21 in stock (in tonnes) s.17; s.21
s.17; s.21 pit / s.17; s.21 pit / s.17; s.21 pit, MoT staff have viewed in the field.
Shows 2 yr plus supply available.

6. How will the contractor ensure a continual supply of salt this winter?

BRBM has spoken to salt supplier and foresees no issues with obtaining additional salt if required. Salt amounts are based on previous years usages. NNC stockpiles available to BRBM when required.

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

Document reviewed from s.17; s.21 Dated Jan.22, 2010 certifying materials and specs.
BRBM to supply certification for this current year.

8. Are adequate supplies of sand on hand at various locations?

winter sand in stock (in tonnes) – amount treated s.17; s.21 ; amount untreated s.17; s.21
MoT staff have viewed stockpiles in the field. s.17; s.21 pit = piles in shed / s.17; s.21 to have
approx s.17; s.21 material stockpiled / s.17; s.21 = winter piles at s.17; s.21 and s.17; s.21 pit / s.21
= winter piles at s.17; s.21 pit and s.17; s.21 pit.

9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

Successful historical locations.

10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Yes. Variance tests conducted. s.17; s.21 pit tests all fall within MoTI specifications.

Findings:

BRBM has documented evidence showing all materials and products to be used meet MoT spec. BRBM produced documented evidence showing adequate locations and volumes of salt/sand within each of the Foreman areas, also that this information has been passed on to MoT.

Evidence – Records reviewed:

Chart with stockpiled winter materials dated Sept.21, 2012
Document s.17; s.21 Dated Jan.22, 2010.
Chart with stockpiled winter materials dated Sept.21, 2012
Documents s.17; s.21 3 Sieve Analysis reports- s.17; s.21 and
s.17; s.21 Dated July 6th, Aug. 17th, Sept. 23rd 2012.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

HUMAN RESOURCES:

11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

Advertisements for new hires. Communication with local operators for seasonal contracts. Review of SS to determine hours worked on each machine in each area to determine number of personal needed. Pursuing full complement of in-house equipment operators, as well as pursuing local hired equipment contracts to provide winter storm response and preparedness. Overtime utilised.

- a. Shift Schedules – posted Oct 1st
- b. Crew Levels planned – s.17; s.21

12. Have all employees, including new hires, received winter orientation training?

In process. s.17; s.21 Oct.10, 2012, s.17; s.21 Oct.16th, 2012, s.17; s.21 by end of October 2012.

- o Operator Winter training beginning Oct 9th
- o Avalanche Training
 - One day avalanche training – TBA

Five Day avalanche training – Nov. 5-9, 2012, Billabong coordinating course in the north this year which includes s.17; s.21

13. What does the training cover? Is the training comprehensive?

Annual review of re-occurring issues, standards and expectations, do's and don't's, pre-trips/post-trips, equipment readiness, hourly equipment inspections, idling policy, plowing policies and procedures, Sanding policy and procedures, salt policy and procedures.

Findings:

BRBM provided documented evidence showing employee lists in all Foreman areas and that active recruitment is on-going; also all staff has received comprehensive winter orientation training including training dealing with emergency response.

Evidence – Records reviewed:

- 11. Advertisements. Interior News Oct.10, 2012 (Snow Plow operators), Interior News Aug. 29, 2012 (Heavy Equipment Operators). Email from ops mngr to gen mngr. "Hired Winter Truck Questions" dated Sept.24, 2012. Email from ops mngr to gen mngr "Winter Preparedness" dated Aug.09, 2012.
- 12. Documents: Operations Gant Meeting dated Oct.09, 2012, Training Record dated Oct.10, 2012- 8 training documents reviewed for s.17; s.21
- 13. Training Record dated Oct.10, 2012- 8 training documents reviewed for s.17; s.21

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

Yes. As to date: one noted with ICBC. In process throughout October and 1st week of November.

Stakeholder Meetings

- Traffic Safety Pre-Winter Meeting – Oct 3rd
- School District 54 – Oct 3rd
- Others in progress for scheduling for later in October and/or early November

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

Yes. Salting Hwy 37. In process of implementing hired equipment contracts. All trucks capable of salting. Avalanche course to be offered locally instead of the Kootenays. New salt plan for s.17; s.21 New idling procedures.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

Yes. Updated list from Interior Newspaper and additionally follow up is occurring with local school district.

Findings:

BRBM has provided sufficient evidence to show correspondence with major stakeholders is taking place and meetings are being scheduled.

Evidence – Records reviewed:

14. BRBM Pre-Winter 12/13 Stakeholder Meeting SS

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

Not to date. Plan is to update crew Oct. 16, 2012 for s.17; s.21 foreman area. No other changes in service area.

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

Yes.

Findings:

BRBM has shown sufficient evidence to show that internal communications are occurring or will be occurring in respect to operational/school bus changes and Article 6 changes.

Evidence – Records reviewed: None

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

WHERE APPLICABLE:

19. Has avalanche training been delivered?

Not to date. Scheduling of CAA RTAM 5 day course to be scheduled for s.17; s.21
Majority of returning operators still hold valid certification.

20. Have avalanche signs been erected?

In progress. Signage in place. One missing (Gladstone area) - on order.

21. Have avalanche gates been checked to ensure they are functional?

Current gates operational. New gates being constructed and to be installed weather permitting.

Findings:

BRBM provided sufficient evidence to show that avalanche training is being scheduled and signage will be in place once directed.

Evidence – Records reviewed:

19. Training base reviewed for employees with current valid certification.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

BRBM to provide current certification for salt stockpiles.

-BRBM provided certification for current year salt stockpiles on Oct. 16, 2012.

Date accepted by MOT: Oct. 16, 2012

Initials: CS

SECTION 4: NCR/OFI ISSUED

None

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 1: AUDIT DETAILS

Audit Report #: 26-1213W-01-Detailed

Service Area: SA26 - Skeena

Name of Contractor: Nechako (141187 Ventures)

Audit Date: November 2, 2012

Date Discussed with MC: November 19, 2012

Auditor: Randy Penner, Operations Manager

Grant Watson, Area Manager, Roads

Auditor Signature

Attendee Register:

Name / Position

Dan Beaulac, General Manager
Peter Lansdowne, Road Superintendent
Tyler Nesbitt, QA/Ops Coordinator

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

Follow-up: Please note there are a number of Opportunities for Improvement where the QMS requirements have been partially or not been met.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing:

- Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Schedule 6
- Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?
- Bonus – Criterion #3 – Does the contractor deal proactively with stakeholders
- Bonus – Criterion #5b – Does the Contractor provide quality analysis
- Bonus – Criterion #5c – Does the Contractor use the information to make decisions around continual improvement
- Bonus – Criterion #6 – Does the contractor QMS accurately reflect how the contractor does business

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

RESOURCES

Equipment:

1. What equipment will be available for winter operations this season and where will it be located (B) QMS 8.3.1.8
2. What percent of the contractor's equipment is ready for the winter season? When will it be 100%? (B) OPS 4.3.3.3.2
3. What process was followed to ensure equipment readiness?
4. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed? (B) OPS 4.3.3.3.5, OPS 4.8.3 and QPE 705 4.5.1
5. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm? (B) QMS 8.2.4 and 8.3.1.8.6
6. Has the company contacted and confirmed availability and readiness of hired equipment and sub-contractors (B) OPS 4.3.3.7

Findings:

1. Met QMS Requirement -s.17; has s.17; s.21 (s.17; s.21 - s.17; s.21
s.17; s.21 s.17; s.21
s.17; s.21
s.17; s.21 In addition, the company has
secondary snow moving equipment that consists of s.17; s.21 (1-s.17;
1-s.17; s.21 currently there is s.17; s.21 , when repaired it will be stationed at Pit 1,
and s.17; s.21 2 s.17; s.21 yard. s.17; s.21 has s.17; s.21
s.17; s.21 and s.17; s.21 s.17; s.21
2. Met QMS Requirement – QMS requires fleet to be winter ready by October 31. s.17;
equipment has s.17; s.21 prepared for winter by October 31, 2012, along with the s.17;
and secondary snow moving equipment. s.17; s.21 remains s.17; s.21 to be ready by
November. Calibration remaining for some units.
3. Met QMS Requirement -Winter Preparedness Schedule 2012-2013 (OPS 4.1.5), showing
Equipment (OPS 4.1.3.3.3, s.17; s.21 outlines
the equipment schedule for evaluating, repair, chains, calibration, etc
4. Met QMS requirement. OPS 4.9 indicate calibration is scheduled to be completed by the
mid November. As of the audit date no units have had their thermometers calibrated.
There are s.17; s.21 that have been checked. There are s.17;
s.17; s.21 that have been calibrated for Salt/sand and s.17; s.21 for sand the remaining s.17; s.21
that are still outstanding as of October 31 2012 (Preparedness Manifest) All non OEM
thermometers are being replaced, s.17; s.21 installs are complete.
5. Met QMS Requirement -. Must have 85% availability of in-house equipment at all times
(only s.17; s.21 , and then General Manager must be contacted. The contractor
contacts local hired equipment operators that are listed in Question 6. The company's
hired equipment registration form includes estimated hours but does not currently provide
a guarantee of hours. The company still plans to pursue hour guarantees to certain
pieces of hired equipment. s.17; s.21
s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

6. Met QMS requirement - There are s.17; s.21 that can be used, as well as s.17; s.21 As of the Audit date the company has signed rental agreements with s.17; s.21
- s.17; s.21 The company has had discussion with remainder of HE listed and they verbally committed but have not yet signed rental agreements.
- s.22 Location: s.17; s.21 Equipment: s.17; s.21 (uncommitted)
 - s.17; s.21 , Location: s.17; s.21 Equipment: s.17; s.21
 - s.17; s.21 Location: s.17; s.21 Equipment: s.17; s.21
 - s.17; s.21 (blade attachment. Location: s.17; s.21 Equipment: s.17; s.21
 - s.17; s.21 , Location: s.17; s.21 , Equipment: s.17; s.21
 - s.17; s.21 Location: s.17; s.21 Equipment: s.17; s.21
 - s.17; s.21 Location: s.17; s.21 Equipment: s.17; s.21
 - s.17; s.21 Location: s.17; s.21 Equipment: s.17; s.21
 - s.22 Location: s.17; s.21 Equipment: s.17; s.21
 - s.17; s.21 , Location: s.17; s.21 Equipment: s.17; s.21
 - s.17; s.21 Location: s.17; s.21 Equipment: s.17; s.21
 - s.17; s.21 s.17; s.21
 - s.17; s.21 s.17; s.21
 - s.17; s.21 - s.17; s.21
 - s.17; s.21 - s.17; s.21
 - s.17; s.21 - s.17; s.21
 - s.22 , s.17; s.21
 - s.22 s.17; s.21

Evidence – Records reviewed:

- Spreadsheet for primary and secondary snow moving equipment.
- Winter Preparedness-Fleet and Equipment Manifest 2012-2013 spreadsheet dated October 31, 2012.
- Winter Preparedness Schedule 2012-2013 (OPS 4.1.5)
- 20112-2013 Winter Sub Contractor List table

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Materials:

7. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations? (B) QMS 8.3.1.9.2 and 8.3.1.9.3
8. How will the contractor ensure a continual supply of salt this winter? (B) QMS 8.3.1.9.2
9. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)? (B&C)) QPE 704
10. Are adequate supplies of sand on hand at various locations? (B) QMS 8.3.1.9.4
11. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?
12. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence. (C&B) QPE 801 4.5.6.

Findings:

7. Met QMS Requirement for all de-icing and anti-icing chemicals for all locations. See table below. QMS 8.3.1.9.2 states that ^{s.17; s.21} will begin each season with ^{s.17; s.21} of Salt.

		Untreated Winter sand	Treated Winter sand	Pre-wet Liquid
Materials ^{s.17; s.21}	Salt ^{s.17; s.21}			
Pit #1 ^{s.17; s.21}				

8. Met QMS Requirement - Reviewed emails showing that the company is considering the future supply of salt for the winter (looking to purchase additional salt during the winter). Sales to other customers will not be allowed to impact the core business needs. Contract with ^{s.17; s.21} is the local distributor). Material comes from Saskatchewan.
9. Met QMS Requirement – Chemicals met requirements of recognized products list and contract requirements
10. Met QMS Requirement - See table above. The untreated winter sand supply was ^{s.17; s.21}, however the company has sufficient aggregate supplies in the company's their main yard in ^{s.17; s.21}
11. Met QMS Requirement - Based on historical data and knowledge. The company tracks historical usage on an electronic spreadsheet and analysis the data to determine whether there is a sufficient material supply for the Service Area.
12. Met QMS and Contract Requirement – the contractor has evidence of winter aggregate material testing demonstrating that it meets the specifications.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Evidence – Records reviewed:

- Email dated October 18, 2012 from ^{s.17; s.21} to the ^{s.17; s.21} group requesting information from the company asking if they anticipate any shortages over the winter. (no response to date).
- Materials - Inventory Valuation spreadsheet as of October 31, 2012.
- Letter from the ^{s.17; s.21} dated October 16, 2012 stating that the de-icing salt is within the ministry's specifications.
- Materials certification from ^{s.17; s.21} dated October 15, 2012 stating that the ^{s.17; s.21} meets the ministry's specifications. The material exceeds the minimum requirements for liquid de-icer as per the Pacific Northwestern Snow Fighting Specifications.
- Sieve Analysis Report from All North Consulting dated September 29, 2011, October 5, 2011 and October 6, 2011. States that ^{s.17; s.21} winter sand from ^{s.17; s.21} pit is within Ministry specs for 12.5mm winter sand Schedule 21.
- Sieve analysis completed internally (email from Tyler to Tyler dated November 21, 2011 and December 9, 2011) stating that all material passed through a 12.5 mm sieve. (last year's material that is still in use)
- Sieve analysis completed internally (email from Tyler to Tyler dated October 17, 2012 stating that all material passed through a 12.5 mm sieve. (Ministry Pit 1)
- Sieve analysis completed internally (email from Tyler to Tyler dated October 17, 2012 stating that all material passed through a 12.5 mm sieve. ^{s.17; s.21}

HUMAN RESOURCES:

13. **How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas? (B) QMS 8.3.1.10**
14. **Have all employees, including new hires and hired equipment operators, received winter orientation training? (B) OPS 4.3.3.4.2**
15. **What does the training cover? Is the training comprehensive? (B&C)) OPS 4.3.3.4.3 and OPS 5.0**

Findings:

13. Met QMS Requirement –The current shift start times differ from the QMS; however the ministry is in agreement with the proposed winter shifts. The Company has a two shift system, seven days a week in ^{s.17; s.21} and one shift per day in ^{s.17; s.21}. The general shift schedules are from noon to 7:30pm and midnight to 7:30am (or until 8:30 at straight time depending on the need). The ^{s.17; s.21} crew is on the same schedule. The ^{s.17; s.21} yard has one operator confirmed. ^{s.17; s.21} 6 am until 2pm Monday to Friday, second operator currently in training to same shift on weekend. There are ^{s.22} ^{s.22} in the ^{s.17; s.21} Area, and ^{s.22} in the ^{s.17; s.21}; ^{s.22} ^{s.17; s.21} i. Supervision - ^{s.17; s.21} ^{s.22} ^{s.17; s.21} - Foreman shift is 6am until 2 Monday to Friday).
- ^{s.17; s.21} Equipment - ^{s.17; s.21} plans to have the ^{s.17; s.21} crew match the ^{s.17; s.21} shifts. Two ^{s.17; s.21} staff are fully committed to help ^{s.17; s.21} and the remaining three are available as required.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

NNC has provided a guarantee of hours for staff on scheduled shifts. No guarantee for as and when operators.

The HE operators and auxiliary operator's positions were advertised in the local newspaper. In s.17; there are s.22 ; available for call in, and s.17; continues to look for additional people to have available.

Did not meet QMS requirement - to staff the s.17; s.21 with an excluded area supervisor. Ministry has agreed to review the company's proposal over the winter that would allow the included working supervisor to take on excluded duties with intent to spend less time in operating equipment.

s.21

s.17; provided evidence of advertising in local newspapers for operators and hired equipment.

14. Did not meet QMS requirement to provide winter training within the established schedule for both company and Hired equipment operators. The QMS requires staff to be winter trained prior to October 31. The company provided some records of toolbox meetings and knowledge tests for operator training however the information was inconclusive as to whether all operators had been trained. s.17; to provide updated spreadsheet of training records (follow up spreadsheet provided by s.22 November 9th did not demonstrate that the company met their training schedule requirements)
15. Met QMS Requirement – Training covers the Winter Operator Handbook (includes plowing instructions, MoTI specs, etc.), truck orientation, QMS, 5 day avalanche course, avalanche control procedures manual, maintenance specifications, avalanche awareness, and winter process/policy and procedures. Operators are given exams for Winter Maintenance and Avalanche Awareness (examples provided for Winter maintenance.) One day Avalanche course planned for November 14th in s.17; s.21(follow up required) Five day Avalanche course planned for November 5th in s.17; s.21 s.22
- s.22 have completed 5 day course. s.17; s.21(follow up required)

Evidence – Records reviewed:

- s.17; s.21 Winter Shift Schedules 2012-2013 spreadsheet.
- Advertisements for Winter Operators and Hired Equipment Registration sent to the s.17; Standard on August 26, 2011.
- Training records report generated December 12, 2011.
- Sample quizzes/exams/questionnaires for Winter Maintenance (Operator Series),
- Winter Operator's Handbook 2012-2013
- Viewed the winter training PowerPoint handout on the computer, provided to Supervisors October 30th
- GO-28 training record provided for a number of operators on various activities. E.g. oxy/acetylene, winter training, winter equipment etc.
- Emails Dated September 21/24 and October 22, 2012 for s.21
- s.21
- September 21, 2012 Northern Connector ad for Hired equipment registration.
- September 21, 2012 Interior News ad for Hired equipment registration for both SA 25/26

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

COMMUNICATIONS:

External:

16. Have pre-winter stakeholder meetings been held? (B) QMS 6.3.2 and OPS 4.3.3.6.1 and 7.3.5.2.6
17. Were any winter operational changes considered as a result of stakeholder concerns/complaints? (B) QMS 6.3.2 and OPS 7.3.5.2.6
18. Has the contractor consulted with the school districts to get an updated list of school bus routes? (B) OPS 7.3.5.2.6

Findings:

16. Partially met meet requirement for completion of Stakeholder meetings by October 31st s.17; met with following stakeholders;
s.21 – s.17; met with s.17; s.21 October 31, and District of s.17; s.21 RCMP on November 1.
– s.17; currently has a stakeholder meeting planned with s.17; s.21 RCMP on November 15th at 11am.
– s.17; has other stakeholders identified but no dates identified.
17. Met QMS requirement - Planned use of s.17; s.21 provided with access to MoTI channels for plow truck); s.17; supervisor is on dedicated shift to allow him to take on more of senior supervisory role. The company also hired additional staff to allow s.17; foreman to dedicate his time towards more superintendent type functions. Increased operator training in advance of winter events
In partnership with their sister company they are fabricating a plough blade for the s.17; s.21 to address subdivision concerns. The company installed satellite internet in the s.17; office to allow access to RWIS and other weather information. The company hired excluded foreman for night shift s.22
18. Partially met requirement - The company downloaded the list of school bus routes from the school district's website; and were added to the Winter Plan Manual. s.17; has plans to meet with First Bus and local school district in the near futures to discuss changes and clarify some questions regarding routes.

Evidence – Records reviewed:

- Pre-winter 12/13 Stakeholder meetings.
- s.22 email to himself dated November 1, 2012 documented his review of school bus routes for the Service area and noted the need to receive some clarification from First bus on posted school bus routes.
- March 27, 2012 Post winter review meeting

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Internal:

19. Have winter operational or school bus route changes been communicated to the operators? (B) OPS 4.3.3.4.3
20. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators? (B) OPS 4.3.3.4.3

Findings:

19. Met requirements - Block Information has been updated. s.17; needs to clarify changes with First Bus before making changes block information.
20. Met requirement – Article 6 change has been communicated to operators. Block maps revised and discussed at tool box meetings. MoTI to provide additional Article 6 that includes the Airport Industrial Park and Falcon road.

Evidence – Records reviewed:

- 2012 major routes and geographical blocks, 2012 (OPA 1)
 - October 15th tool Box meeting noting road classification change for s.17; s.21 road.
 - Updated Operator Block Map noted s.17; s.21 road class change
21. Has avalanche training been delivered? (B&C) OPS 4.3.3.4.5
 22. Have avalanche signs been erected? (B&C) OPS 4.3.3.5.1
 23. Have avalanche gates been checked to ensure they are functional? (B&C) OPS 4.3.3.5.3

Findings:

21. Partially met QMS requirement. QMS requirement is to complete avalanche training by mid November. No training was completed as of the audit date. One day avalanche course is planned for the week of November 14th in s.17; s.21 (follow up demonstrated the 1 day Avalanche course took place November, attendees included s.17; s.21 staff and s.17; s.21 November 22nd follow-up: Three sessions of the 1 day Avalanche course were completed November 14th. Documentation indicated that the following groups participated; s.17; s.21 s.17; s.21 No evidence of Hired equipment staff in s.17; s.21 included in the training.
22. Met QMS requirement - Avalanche signs are in place. s.17; s.21 had been directed by Avalanche techs to uncover 35 mile signs at this time.
23. Met QMS requirement - s.22 hired to complete service of the Avalanche gates in s.17; s.21 area. All servicing has been completed.

Evidence – Records reviewed:

- Oct 10th hired equipment card documented completing of avalanche gate servicing by s.22
- Oct 18th hired equipment card documented completing of avalanche gate servicing by s.22
- October 29th email confirming the planned five day avalanche course
- October 26th email from s.22 to s.17; reporting that the avalanche signs had been turned.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

24. What changes were implemented or considered as a result of the last winter seasons processes and procedures review. Provide evidence of completed analysis. (B) OPS 4.3.3.3.1 page 2 and QMS 8.3.1.6)

Findings:

See question 17.

Evidence – Records reviewed:

March 27, 2012 Post winter review meeting.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Date accepted by MoTI: [Click here to enter a date.](#)

Initials: Choose Initials

SECTION 4: NCR/OFI ISSUED

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 1: AUDIT DETAILS

Audit Report #: 27-1213W-01-Detailed

Service Area: SA27 - North Coast

Name of Contractor: O'Brien Rd & Bridge

Audit Date: November 28, 2012

Date Discussed with MC: November 28, 2012

Auditor: Randy Penner, Operations Manager

Auditor Signature

Attendee Register:

Name / Position

Dennis Reindl, Operations Manager
Greg Stewart, Quality Control
Wayne Nicol, Operation Manager Assistant

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

Contractor met majority of QMS requirements and all of the contract requirements. Opportunities for Improvement around Prince Rupert equipment levels, meeting equipment winter preparedness/readiness schedule.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing:

- Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Schedule 6
- Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?
- Bonus – Criterion #3 – Does the contractor deal proactively with stakeholders
- Bonus – Criterion #5b – Does the Contractor provide quality analysis
- Bonus – Criterion #5c – Does the Contractor use the information to make decisions around continual improvement
- Bonus – Criterion #6 – Does the contractor QMS accurately reflect how the contractor does business

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

RESOURCES

Equipment:

1. What equipment will the company have in place for winter operations this season and where will it be located (B)

What is being assessed:

QP01 Part C07 Rev C 3rd paragraph "We currently have^{s.17; s.21} in^{s.17; s.21} and^{s.17; s.21} on the^{s.17; s.21} In^{s.17; s.21} the Trucks and loader are based out of the^{s.17; s.21} We also have^{s.17; s.21} in the pit at^{s.17; s.21}. On QCI^{s.17; s.21} is based in^{s.17; s.21} and the rest of^{s.17; s.21} the trucks are located in the yard at^{s.17; s.21} We have a loader in^{s.17; s.21} and loaders^{s.17; s.21} located in^{s.17; s.21} Pit, The^{s.17; s.21} and at the^{s.17; s.21} Pit south of^{s.17; s.21} In winter there is also a grader in each area." QMS requirement was met;

Findings:

Does not meet QMS Requirement noted above. The available^{s.17; s.21} do not match the equipment noted above. The district will observe the contractors performance over the winter to determine if the available equipment is adequate to meet ministry specification for winter maintenance. It appears there may not be sufficient equipment to address maintenance requirements while equipment is unavailable for repairs or maintenance. In addition the QMS states that a grader will be located in^{s.17; s.21} The company currently plans to relocate a^{s.17; s.21} when required or hire a subcontractor (No evidence of hired equipment agreements are in place to ensure grader availability)
OFI – Not meeting QMS requirement for QMS equipment levels. If company is confident that they can continue to meet specification they can seek approval for a QMS change for the revised Equipment levels.

The contractor has the following equipment:

Winter Equipment:

^{s.17; s.21}

^{s.17; s.21}

Winter Equipment locations:

27-A ^{s.17; s.21}

^{s.22}

Contractor Grader & Operator – on call for the season ^{s.17; s.21}
paving)
^{s.17; s.21}

27-B ^{s.17; s.21}

^{s.22}

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

s.22

s.17; s.21

Evidence/Records Reviewed:

- QF 75 – Winter Equipment Status 2012-2013. shows list of equipment, attachments, location and stage of readiness. All core winter equipment was completed

2. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

What is being assessed:

QP01, Part C07, Rev C, 3rd paragraph, page 7 and QM09, rev A, Equipment Maintenance and Instrument Calibration Process. "Winter Preparedness Checks – Before October 1 antifreeze, safety checks, installations of all winter attachments, accessories and their functional checks by mechanical personnel.

Unverified approved revision to QM08 and 09 (Rev B) Before October 1st: coolant inspection recorded on QF 74.

- Prior to October 15th: installation of all winter attachments and accessories and their functional checks by mechanical personnel on s.17; s.21 in each foreman area recorded on QF 75.
- Before November 15th: installation of all winter attachments and accessories and their functional checks by mechanical personnel on remaining equipment, recorded on QF 75.

Findings:

Does not meet QMS requirement noted above, however winter preparedness requirements were partially met for the majority of fleet in both in both s.17; s.21 by November 16th, 2012. Unverified QMS change noted above states that s.17; s.21 in each foreman will be ready by October 15th of each year and before November 15th: installation of all winter attachments and accessories and their functional checks by mechanical personnel on remaining equipment The company plans to have the remaining equipment winter ready by the end of November. (Ministry to follow up) **OFI – Document QMS changes approved by the ministry and update ministry copy of QMS.**

Evidence/Records Reviewed:

- QF 75 – shows list of equipment, attachments, location and stage of readiness dated November 16, 2012 indicates s.17; s.21
- QF 74 – shows completion of winter equipment coolant inspection status. s.17; s.21 to be checked for required coolant.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

3. What process was followed to ensure equipment readiness?

What is being assessed:

QP01, Part C07, Rev C, 3rd paragraph, page 7 and QM09, rev A, Equipment Maintenance and Instrument Calibration Process and;

Unconfirmed approved revision to QM08 and 09 (Rev B)

- Before October 1st: coolant inspection recorded on QF 74.
- Prior to October 15th: installation of all winter attachments and accessories and their functional checks by mechanical personnel on s.17; s.21 in each foreman area recorded on QF 75.
- Before November 15th: installation of all winter attachments and accessories and their functional checks by mechanical personnel on remaining equipment, recorded on QF 75.

Findings:

Does not meet QMS requirement noted above, the contractor issued NCR's for not meeting QMS requirements. **OFI** – *Document QMS changes approved by the ministry and update ministry copy of QMS.*

Evidence/Records Reviewed:

- QF 75 – shows completion of winter equipment status. s.17; s.21 were completed; however s.17; s.21 were not ready. ORB issued internal NCR for not meeting winter preparedness requirement for these spare units. NCR 27-W-10-02 issued (November 16th)
- QF 74 – shows completion of winter equipment coolant inspection status, not all equipment was inspected. ORB issued NCR for not meeting Coolant inspection. s.17; s.21 to be checked for required coolant requirement for s.17; s.21 . NCR 27-S-09-03 issued (October 2nd)

4. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed? (B)

What is being assessed:

QM09, Rev A, pg 2 & 3 - Equipment Maintenance and Instrument Calibration Process (Sand and Salt Dispersing Systems and Temperature Gauges)

Findings:

Partially met QMS requirements. Calibration checks were not completed for all vehicles prior to the start of winter. **OFI** – *review process to ensure calibration is completed as per the QMS requirements.*

Evidence/Records Reviewed:

- QF 080, Rev A – Material Controller Calibration Record process started October 12th, to October 23rd.
Completed
– S5012 - Calibrated ambient & surface Nov

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- S5013 - Calibrated ambient & surface Nov
- PT933 - Calibrated ambient Oct/Nov
- S5006 Calibrated ambient & surface Oct/Nov
- S5007 - Calibrated ambient & surface Oct/Nov
- Uncompleted
 - S5008 - Calibrated ambient & surface Oct/Nov
 - S5014 - Calibrated ambient & surface Nov
 - PT932 – Calibrated ambient Oct/Nov
- QF 076, Rev A – Material Application Rates
- QF 080 Calibration records for PT 933, S5006-7 and S5012-13.
- QF 25 Instrument Calibration record Dated between October 12th and November 7th shows records for checking both ambient and surface thermometers for all units noted in Question 1 with the exception of PT932, S5008, S5014, and contractor plans to complete the instrument calibration by the end of November.

5. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm? (B&C)

What is being assessed:

QM 09, Rev A, pg1 – Equipment Maintenance and Instrument, QP01, Part C07, pg 8 and QP01, Part C03, Rev B – Local Knowledge

Findings:

Contractor met QMS requirement. The contractor has tried to secure hired equipment to supplement their core resources through advertising in local newspapers. s.17; s.21 have realized that they cannot rely on hired equipment and have ensured they have enough internal equipment to meet breakdown requirements or extreme weather events. With changes to the Core winter equipment fleet the ministry was continue to monitor contractor's performance to ensure availability of minimum equipment levels. The auditor was not able to confirm a documented timely strategy for use of s.17; s.21 in the s.17; s.21 area.

Evidence/Records reviewed:

- Winter Preparedness – QP01 part C& rev D Equipment and Material Management Plan
- Advertisements in March 2012 for hired equipment - reviewed invoices: s.17; s.21
Northern View (March 28/April 4th 2012), *Observer Publishing Co.* Mar8th and 15th 2012.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Materials:

**6. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?
Do these supplies meet ministry specifications?(B)**

What is being assessed:

QP01, Part C03, Rev B – Local Knowledge and QP01, Part C07, Rev D – Equipment and Material Management states “Based on historical records, annual supply of sand and salt will be stocked in the strategically located areas at least one month before the winter season. The minimal inventory levels for sand and salt are as follows for s.17; s.21 and s.17; s.21’

QP01, Part 7, C07, Rev D:

Winter Abrasive and Chemical De-Icing Material - Annual Inventory (QMS)

Locations	Salt m ³	Sand m ³
s.17; s.21		
s.17; s.21	s.17; s.21	s.17; s.21
s.17; s.21	s.17; s.21	s.17; s.21
Annual Total	s.17; s.21	s.17; s.21
s.17; s.21		
s.17; s.21	s.17; s.21	s.17; s.21
s.17; s.21	s.17; s.21	s.17; s.21
s.17; s.21	s.17; s.21	s.17; s.21
s.17; s.21	s.17; s.21	s.17; s.21
s.17; s.21	s.17; s.21	s.17; s.21
Annual Total	s.17; s.21	s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Findings:

The contractor met QMS Salt requirements for Stockpile quantities as noted below.
Total salt in stock: s.17; s.21 . The contractor met
material specification with MOTI approved variance (see below).

Winter Abrasive and Chemical De-Icing Material - Annual Inventory 2012

Locations	Salt m ³	Sand m ³
s.17; s.21	s.17; s.21	s.17; s.21
Annual Total		
s.17; s.21	s.17; s.21	s.17; s.21
Annual Total		

Evidence/Records reviewed:

- Sand/Salt Inventory 2012 (updated November 2012)

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

7. How will the contractor ensure a continual supply of salt this winter? (B)

What is being assessed:

QP07, Part C07, Rev C

Findings:

The contractor met QMS requirement. The contractor maintained a salt supply that is in excess of their highest use year. Contractor has a process in place to ensure adequate salt supply by maintaining a year and half supply. Salt inventory is shown in table from Question 6.

Evidence/Records reviewed:

Historical Salt Usage Record – Updated April 3, 2011 – starts in 1994 showing usage by year and averages for Areas A&B

Historic salt usage records dated 1994 to present - average salt^{s.17; s.21} and average sand usage is^{s.17; s.21}. ORB currently has^{s.17; s.21} of salt.

8. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)? (B&C)

What is being assessed:

Material QC Testing QP0, Part C05, Rev E – Quality Control and Assurance Plan

Findings:

The contractor met QMS requirement. De-icing chemicals are on the recognized products list. The ministry approved minor deviation from required particle size.

Evidence/Records reviewed:

- Certificate of Compliance (2011/2012) for Road De-icing Salt from^{s.17; s.21}
- November 5th 2012 email from^{s.22} requesting variance for minor deviations from sieve requirement for particle size.
- November 5th 2012 email from MoTI^{s.22} approving the use of the material.
- Recognized Products list for^{s.17; s.21}

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

9. Are adequate supplies of sand on hand at various locations? (B)

What is being assessed:

QP07, Part C07, Rev C

QP07, Part C03, Rev B – Local Knowledge and QP01, Part C07, Rev D – Equipment and Material Management states “Based on historical records, annual supply of sand and salt will be stocked in the strategically located areas at least one month before the winter season. The minimal inventory levels for sand and salt are as follows for s.17; s.21 and s.17; s.21”

QP01, Part 7, C07, Rev D:

Winter Abrasive and Chemical De-Icing Material - Annual Inventory (QMS)

Locations	Salt m ³	Sand m ³
s.17; s.21		
s.17; s.21	s.17; s.21	s.17; s.21
Annual Total		
s.17; s.21		
s.17; s.21	s.17; s.21	s.17; s.21
Annual Total		

Findings:

The contractor met winter aggregate requirements and material met an acceptable specification. As of October 1, 2012 the contractor has completed stockpiling their annual supply of Winter Materials that meet or exceed the requirements outlined within the QMS

Stockpile quantities as noted below:

Total winter aggregate in stock: s.17; s.21

- Un-treated sand: s.17; s.21
- Treated sand: s.17; s.21

Winter Abrasive and Chemical De-Icing Material - Annual Inventory 2012

Locations	Salt m ³	Sand m ³
s.17; s.21	s.17; s.21	s.17; s.21
Annual Total		
s.17; s.21	s.17; s.21	s.17; s.21
Annual Total		

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Evidence/Records reviewed:

- Sand/Salt Inventory 2012
- November 5th 2012 email from s.22 requesting for variance minor deviation from maintenance requirements (low passing in the 0.600mm range).
- Historic sand usage records dated 1994 to present showing usage by year and averages for Areas A&B. Average salt use is s.17; s.21 and average sand usage is s.17; s.21 . ORB currently has s.17; s.21 of winter aggregate in stock.
- s.22 tracks material usage in all locations by pit and month through daily time cards

10. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area? (B)

What is being assessed:

QP01, Part C07, Rev D – Equipment and Material Management states “Based on historical records, annual supply of sand and salt will be stocked in the strategically located areas at least one month before the winter season.

Findings:

The contractor met QMS requirement. The contractor follows their QMS for determining salt stockpile locations.

Evidence/Records reviewed:

- Historic sand usage records dated 1994 to present showing usage by year and averages for Areas A&B. Average salt use is s.17; s.21 and average sand usage is s.17; s.21 . ORB currently has s.17; s.21 of winter aggregate in stock.
- s.22 tracks material usage in all locations by pit and month through daily time cards
- currently has s.17; s.21 of salt and s.17; s.21 of sand.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

11. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence. (B&C)

What is being assessed:

QP01, Part C05, Rev C – Quality Control and Assurance Plan (pg 39 of 44)

Findings:

The contractor met QMS and Maintenance Specification requirement. The new winter sand produced generally meets ministry specification (compliant). See variance request noted below.

Evidence – Records reviewed:

- Produced in ^{s.17; s.21} pit – records of material testing (sieve analysis) throughout the production period of 13,000m³+ by independent contractor.
- Magnum Road Builders – Sand sieve analysis for purchased sand for ^{s.17; s.21} recorded testing by independent contractor (ALLNORTH consultants).
- ALLNORTH consulting sieve analysis dated October 25th, 2012. Indicated that the material in the 0.600 range there was 8.3 to 8.7% passing. 10 to 50% is the requirement.
- November 5th, 2012 email from ^{s.22} requesting a variance for the deviation noted above.
- Kootenay Engineering Ltd, ^{s.17; s.21} 18 sieve analysis were completed between March 31st to May 9th 2011 at the ^{s.17; s.21} Pit. There is adequate material located in ^{s.17; s.21} for the duration of the contract no further testing is required.

HUMAN RESOURCES:

12. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

What is being assessed:

QF 15 – winter shift schedule for 27A and 27B

Anticipated start date - Prince Rupert (27A) November 15, 2012*

Anticipated start date – Queen Charlottes (27B) November 15, 2012*

**Or sooner if weather conditions dictate*

Winter Shift Start-up Training Schedule: Prince Rupert (27A) – October 31, 2012**

Winter Shift Start-up Training Date: Queen Charlottes (27B) - Nov. 2, 2012**

Findings:

Met QMS requirement, the contractor has a process to ensure sufficient staff is available. The contractor has 6 staff available over and above the staffs that are scheduled for regular shifts.

i.e. ^{s.17; s.21}

training.

27B:

- s.22 - training completed
- s.22 - training completed
- s.22 - training completed
- s.22 - training completed
- s.22 - training completed
- s.22
- s.22 - training completed
- s.22 - training completed
- s.22 - training completed

Spares:

- s.22 - training completed
- s.22
- s.22
- s.22

13. Have all employees, including new hires, received winter orientation training? (B&C) What does the training cover? Is the training comprehensive? (B&C)

What is being assessed:

- QP01, Part C08, Rev B – Training Plan and QP08 Part 02 Pg 1, “Upon completion of this review all employees will be required to sign a QF 36, WINTER EMPLOYEE DECLARATION acknowledging that they have received winter training.”
 - **Winter Shift Start-up Training Schedule:**s.17; s.21 (27A) – October 31, 2012**
 - **Winter Shift Start-up Training Date**s.17; s.21 (27B) - Nov. 2, 2012**
**subject to change
- QP08 (27A) and QP09 (27B) Winter Shift Start-up training;
Winter Shift Start-up Training is a review of documentation from QP08 (27A) and QP09 (27B) Winter Operations Manuals, related Maintenance Specifications, and Production Standards. Followed by a practical review of the equipment involved in winter maintenance, ending with an overview of winter maintenance related issues during a round table discussion.

Findings:

Met QMS requirement and Contract requirements, the majority of employees have been trained. The remaining employees that have not completed the winter training have worked for the company in the previous winter.. The company plans to schedule training for the remaining employees. (Ministry to follow up)

Training is comprehensive and includes the following information from QM 08 and QM 09

- Maintenance Specifications
- Production standards
- Winter Routes
- Salt management Plan
- Road and Weather monitoring
- Emergency contact list

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- Emergency traffic control
- Emergency Road Closure procedures
- Man check Procedures
- Avalanche closure procedures s.17; s.21

Within the training manual is a WINTER OPERATOR HANDBOOK that is given to each operator upon completion of the winter training.

Evidence – Records reviewed:

- QF 036, Rev C - Winter Employee Declarations; QP08 Part 18 Rev C Winter Employee Declarations; 17 employees have received winter training, 6 employees require 2012 winter training, all these employees have completed 2011 winter training. (see employee list in question 12)
- QP09, Part 02, Rev C – Winter Shift Meeting Agenda (i.e. read winter operations manual, equipment practical training, snowplow hazard video, WHIMIS, Highway Condition Reporting, etc)
- QP08 Part 19 rev Cs.17; s.21 WINTER OPERATOR HANDBOOK
- QP09 Part 19 Rev Cs.17; s.21 WINTER OPERATOR HANDBOOK

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held? (B&C)

Stakeholder list (40 – 50) has been developed over years

What is being assessed:

QP01 Part C06 b. Stakeholders Plan Pg 2 of 9 “We envision an annual meeting or an annual mail survey/ information newsletter with those stakeholders requesting involvement in the process. The stakeholders would then be updated on our accomplishments and future plans and be offered the opportunity to offer any comments, concerns or suggestions for improvements.” and; “All reports will then be placed on the agenda for review at scheduled Management meetings to ensure that proper processes have been followed, namely QM14, Continual Improvement Process.”

Findings:

Met QMS requirement. The contractor has made attempts to contact key stakeholders through the survey/newsletter emailed October 24th. There has been no feedback resulting from the newsletter as of the audit date. The contractor has intentions of meeting with local governments and emergency services as documented in the companies Monthly Action Plan for October and November.

Evidence/Records reviewed:

- QP01 Part C06 Rev C Stakeholders and Community Relations Plan
- QM 14 Rev B Continuous Improvement Process

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- Letters to Stakeholders Binder – Survey/Newsletter was emailed October 24th, 2012 and included information about Drive BC (including Drive BC subscription forms), summer program activities summary, contact information for s.17; s.21 winter driving information tips and contractor contact information. No response from Stakeholders at time of audit (November 28th)
- Email dated October 24th to SA27 stakeholders inviting them to meet with the company to discuss winter issues. No response to date.
- QF001 Public Communication Records Binder (October 22, 2012 – met with the s.17; s.21 s.17; s.21 discussion about working together to discuss winter issues.
- October/November Monthly Action Plan.

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints? (B)

What is being assessed:

QM14, Rev A – Quality Management System Continuous improvement Process and QP01, Part C06, b. Stakeholders Plan

Findings:

Met QMS requirement, Management Review Meeting was held in November 7th to review stakeholder concerns for winter last year's winter maintenance. No trends were identified as a result of the review, no QMS changes were required as a result of the review.

Evidence/Records reviewed:

- Management Review meeting November 7th 2012

16. Has the contractor consulted with the school districts to get an updated list of school bus routes? (B&C)

What is being assessed:

QP01, Part C06 b - Stakeholders Plan

Findings:

The contractor met QMS and Contract requirements. The Contractor contacted First Bus to receive updated school bus routes. No changes were reported to s.22

Evidence/Records reviewed:

- August 20th 2012 email record – from s.17; s.21 noting no changes school bus routes/schedules.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Internal:

17. Have winter operational or school bus route changes been communicated to the operators? (B)

What is being assessed:

QP08 – Winter Operations Manual -s.17; s.21 and QP09 – Winter Operations Manual – s.17; s.21

Findings:

There were no school bus route changes, but routes were reconfirmed and operators were given a map in their winter training package.

Evidence/Records reviewed:

- QP08, Part 4 -s.17; s.21 winter routes (pgs 18 & 19)

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators? (B)

What is being assessed:

QP08 – Winter Operations Manual -s.17; s.21 and QP09 – Winter Operations Manual – s.17; s.21

Findings:

Contractor met QMS requirement, Article 6 changes to road inventory include s.17; s.21 and a cul de sac off of s.17; s.21. These article 6 changes were not shared with the operators as there is no maintenance changes required for local operators. s.17; s.21 has made arrangements for a local contractor to maintain the 2 kilometers of road at s.17; s.21.

Evidence/Records reviewed:

None required

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

WHERE APPLICABLE:

19. Has avalanche training been delivered? (B&C)

What is being assessed:

QP08 – Winter Operations Manual -s.17; s.21 and **add Maintenance requirements**

Findings:

Contractor met QMS and Contract requirements. Through the review of records noted below, s.17; s.21 was found to be compliant to their QP08 and Maintenance Contract requirements.

Evidence/Records reviewed:

- QP08, Part 17, pages 1-4, Avalanche Closure / Sweep Procedure
- One Day Avalanche Course Training Record –s.22 (new or due to take training which is sufficient for 3 years)
- s.22 Email dated October 30th 2012 confirming payment for 5 day avalanche course.
s.22 Foreman s.22 completed 5 day avalanche course in Smithers the week of November 5th, 2012.
- Internal email dated November 28th indicating the company has December 10th one day avalanche course planned for s.17; s.21 staff.s.17; s.21 s.22 and s.22 s.22 also plan to attend.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

20. Have avalanche signs been erected? (C)

What is being assessed:

Findings:

The contractor met contract requirements

Evidence/Records reviewed:

- s.17; s.21 road supervisor completed - QF23 (QC/QA Report) showing completed Avalanche sign installs

21. Have avalanche gates been checked to ensure they are functional? (C)

What is being assessed:

Findings:

The contractor met contract requirements. Upon review of record below, it was determined that the gates were checked (lowered) new batteries were installed on gate warning beeper/blinkie lights, locks and keys for gates on all s.17; s.21 vehicles (same as last year) and that the Avalanche Technicians have keys.

Evidence/Records reviewed:

- s.17; s.21 road supervisor completed - QF23 (QC/QA Report) showing completed Avalanche gate review

22. How does the company ensure effective quality control and assurance through the winter season? (B&C)

What is being assessed:

QP01, Part C05, Rev C - Quality Control and Assurance Plan

Findings:

Met QMS requirement, the company ensures effective QC/QA through the use of QF 23- Quality Control Report – along with regular monitoring and inspections following inspection frequency

Evidence/Records reviewed:

- QF 23 QC/QA Report dated November 19th, 2012 for activity 310B (Hwy 16,north and south)
- QF 23 QC/QA Report dated November 19th, 2012 for activity 310B (Hwy 16, north and south)
- QF 23 QC/QA Report dated November 129th, 2012 for activity 310A (Hwy 16, Port Clements to Tlell.
- QF 23 QC/QA Report dated November 129th, 2012 for activity 310A follow up on de-icing chemical application (Hwy 16, Port Clements to Tlell
- Additional QF 23's reviewed for winter activities

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

23. Did the company analyse the effectiveness of last winter seasons Quality Control and Assurance and incorporate findings into this season's program? (B)

What is being assessed:

QM14, Rev A – Quality Management System Continuous improvement Process

Findings:

Met QMS requirement, Management Review Meeting was held in November 7th to review stakeholder concerns/complaints, internal /external NCR's and OFI's. No trends were identified as a result of the review; no QMS changes were required as a result of the review.

Evidence/Records reviewed:

- Management Review meeting November 7th, 2012 – no changes were required as a result of the QMS review.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Date accepted by MoTI: [Click here to enter a date.](#)

Initials: [Choose Initials](#)

SECTION 4: NCR/OFI ISSUED

See questions 1, 2 and 3

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

SECTION 1: AUDIT DETAILS

Audit Report #: 2012-13 #1

Service Area: SA28 - Stikine

Name of Contractor: Lakes District Maint

Audit Date: October 25, 2012

Date Discussed with MC: October 25, 2012

Auditor: R.Lokken, a/Ops Mgr

Auditor Signature

Attendee Register:

Name

Richard Lokken
Sabrina Larsen
Marlene Keehn
J.R. Waite
Joe Waite
Al Johnson
Mike
Robin

Position

MoTI a/Ops Mgr
MoTi Ops Mgr
MoTi DoT
LDM QC & Plan Mgr
LDM Ops Mgr
LDM Assist Ops Mgr
LDM Mech FM
LDM Jade City FM

Topic of Audit:

Winter Preparedness

Overall Summary of Findings: LDM has effectively prepared for winter although some there are some concerns with meeting required man power levels. s.17; sched is full, s.17; s.21 p.17; s.21 are currently each short 2 crew, remaining 3 yards each have 1 vacancy on winter schedule(s.17; s.21)

Attachments: Email Oct 1 from LDM Ops Mgr.

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Distribution: Original to District; Copy to Contractor

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

RESOURCES

Equipment:

- 1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?**

s.17; s.21

15% work outstanding – equipment some s.17; s.21

- 2. What process was followed to ensure equipment readiness?**

Pre winter checklist, run each piece through shop.

- 3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?**

Calibration has not been completed yet. How: Manual, bucket and timed measurement – 3 or 4 samplings, take average, then set calibration as per the rates. s.22 do calibrations. This is done annually. Changes from each unit from year to year. 3rd week in November is when calibration is planned.

s.17; s.21 is used. s.17; s.21 s.17; s.21 Only chem. is s.17; s.21 used for airport mtce, but haven't had to yet – has in stock, but need direction from higher than NavCanada to use, causes more issues for the airplanes.

- 4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?**

Talk to local contractors every year, they are usually busy when we need them. Have only used s.22 for daylighting, s.17; s.21, other equip rarely avail. We have as s.17; s.21 in s.17; s.21, it can be moved to where needed. Mechanical parts eg., spare diff, trans, chains, etc, blades, but no documents re: parts as backup plan.

Findings:

s.17; s.21

15% work outstanding – equipment some s.17; s.21 etc.

Evidence – Records reviewed:

Equipment Readiness logs S0475 Oct 11, 2012
S6909 Oct 18, 2012
S0467 ND
S9904 Oct 24, 2012
S0462 Sept 26, 2012
S0463 Oct 10, 2012
S0470 Oct 5, 2012
S0468 Oct 11, 2012

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Materials:

- 5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?**
s.17; s.21 on site in s.17; s.21, sand has been treated at all sites as required s.17; s.21 in s.17; s.21
- 6. How will the contractor ensure a continual supply of salt this winter?**
n/a
- 7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?**
Document is kept in s.17; s.21 Fax copy to Auditors asap.
- 8. Are adequate supplies of sand on hand at various locations?**
See documents provided
- 9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?**
See documents provided
- 10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.**
Crush in s.17; s.21 pit (crushed, not screened) does not meet spec (high in fines). Provide MoTI with the survey and testing documents.

Findings: Adequate materials are stockpiled and ready for winter use. Survey/sieve results have not yet been received Nov 2/2012

Evidence – Records reviewed:

List of volumes in each location provided
s.17; s.21 Oct 30, 2012

HUMAN RESOURCES:

- 11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?**
Trying hard to recruit new people, with very little success. A good number of auxiliaries have returned. By yard - what current commitment is and current levels. s.17; s.21
s.17; s.21
Auxiliaries are being brought on right away, to help retain those that are hired. Night shift started on 15th, winter weather in some areas s.17; s.21. Mid November is when usually full shifts are. Already on shift, just don't have all positions filled. Shift times: 6:30am to 2:30pm; 6:30pm to 2:30am (s.17; s.21 s.17; s.21 is on 8.5 yr shift, gives them long weekend every 3 weeks. One employee starts at 6 am to beat the school bus.
LDM to provide resource numbers, schedules, lists of staff to auditors as it is updated.
- LDM provided updated winter schedules Nov 1 that show s.17; s.21 for current winter schedule. QMS commitments show a shortage of s.17; s.21 but it is clear that LDM has modified schedule to best suit winter requirements, example= QMS shows s.17; s.21 required for s.17; s.21 and LDM has increased s.17; s.21.

- 12. Have all employees, including new hires, received winter orientation training**
Training starting in Nov 6. Currently informal training (one on one) being done now, then formal group training with bigger compliment of staff. No "Blocks" in SA 28, except in Dease Lk, the

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bus routes are sectioned out. Dease streets/bus and the rest, bus routes done before everything else in storm (Highway, Town and 51).

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Distribution: Original to District; Copy to Contractor

13. What does the training cover? Is the training comprehensive?

Covers radio use, Major Storm procedures, cost saving efficiencies, plowing practices, sanding/grading procedures. Equipment Servicing and work reporting as well as Drive BC Road condition reporting. Also shows employee input that drives improvement in operations for each foreman area.

Findings: Winter training adequately covers most aspects of winter operations and is comprehensive.

Evidence – Records reviewed:

Minutes from previous years' training, what is covered. (used year after year). Same format used throughout the company. Anything brought up is added, and forwarded to Yard area managers, then they use them in tool box minutes, etc.

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

s.17; s.21

Historically not many attend, 4 avg.. s.17; s.21

s.17; s.21 but even there is tapering off. Will discuss with s.17; s.21

Week of Nov 12 onward.

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

Any from the meetings, altered mtce level from school board and parent request

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

Yes SD87, s.17; s.21

Findings: LDM has hosted stakeholder meetings and will attempt to reschedule DL stakeholder meeting

Evidence – Records reviewed: verbal

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

"colour sheets", daily response plan sheets.

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

No changes since last winter, but roads are added to the response plan sheets as changes are made.

Findings: No changes

Evidence – Records reviewed:

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Winter response plan from last winter Year 2010/2011
Block Sheets

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

WHERE APPLICABLE:

19. Has avalanche training been delivered?

Yes, meeting on Oct 25/12, 1 day training in Nov (12 sessions) 1 per each yard, 1 to catch day shift and 1 for night shift).

20. Have avalanche signs been erected?

Yes, , turned to traffic on Oct 15th, turned back through Ningunsaw while NTL contractor is working in the area.

21. Have avalanche gates been checked to ensure they are functional?

s.17; s.21 – yes, functional.

BQ are most in need of repair.

TC road lower gate has incorrect w54's

Findings: LDM has consulted with Moti Avalanche crews and will coordinate installation of remaining signs the AB.

Evidence – Records reviewed:

Work Reporting August 10th - new signs

22. What are typically levels of tandems, single and graders, loaders for each yard.

Provide levels that are typically marshalled in each yard to MoTI. SIT.reports show levels.

Eg:

s.17; s.21

s.17; s.21

s.17; s.21

s.17; s.21

s.17; s.21

s.17; s.21

Findings:

Evidence – Records reviewed:

Sit.Report for s.17; s.21 (s.17; s.21

s.17; s.21

Verbal information for Assistant Ops Manger.

ADDITIONAL DOCUMENTS:

----- Original Message -----

From: s.22

Sent: Monday, October 01, 2012 09:51 AM

To: Schley, Cam D TRAN:EX; XT:MtCon,s.22

TRAN:IN

Cc: Lokken, Richard TRAN:EX

Subject: RE: ACTION: Winter Preparedness Info

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

1. Amount of winter sand in stock (in tonnes) amount treated ____ ; amount untreated ____.

1) We have not received the survey results yet, but will soon. There was adequate amounts of material produced ins.17; s.21 this summer. The other yards still had surplus amounts from the previous year and did not require new stock piles. *** I will try to get the actual numbers this week and send them to everyone - Delwisch performed the survey and should have their final report in here soon.

2. Amount of s.17; s.21 in stock (in tonnes).

2) None

3. Number of trucks equipped with ploughs.

3) We had s.17; s.21 completely winter ready in all yards as of this morning - except for s.17; s.21, which we have had to issue an internal NTS on (researching the reasons now and will add to the report). All other areas have s.17; s.21 with full front and underbody plow and capable of putting out sand. *** s.17; s.21 has s.17; s.21 just not capable of putting out sand at this time. This will be remedied by Wednesday morning, and will be "risk managed" and resources dispatched from s.17; s.21 in the event of inclement weather.

4. Number of salt trucks.

4) Same as plow trucks - other than we do not broadcast s.17; s.21 only s.17; s.21

5. Number of multi-purpose trucks (both plough and salt/sand).

5) SAME AS 3 AND 4 ABOVE

6. Number of graders.

6) s.17; s.21 winter ready with wing etc (s.17; s.21 being converted to winter next week, set up for summer grading at this time). s.17; s.21 in s.17; s.21 but working gravel and not equipped with wings yet. s.21

7. Number of truck and grader operators. Include the number of auxiliaries if known.

7) At this time we have auxiliary numbers in s.17; s.21 s.17; s.21

s.17; s.21

These are the numbers of auxiliary employees secured at this time. We have been in contact with several of the others that we bring on as the maintenance demands and the tentative auxiliary numbers are looking alright at this time.

*** s.17; s.21 is light on manpower this year. We have postings for regular positions out there, but have turned up no interest. There is one regular employee (area manager/operator) and s.17; s.21 at this time while working towards s.17; s.21.

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s.22 has shown good interest on last years aux crew coming back so no problems there.

s.17; s.21 we have one new aux coming on and the ones from last year have confirmed they will be back as well. s.17; s.21 - no problems here.

s.17; - all good.

s.17; s.21 . It appears as though we will be alright here. We have some "new" interest from people looking for work this year and combined with the compliment of last years auxiliaries coming back on we will be alright in s.17; s.21

s.17; s.21 The regular auxiliaries confirm they are ready to come back when they are needed.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Contractor will actively recruit additional staff to ensure man power commitments are met.

Survey/Sieve results for winter material will be forwarded to Moti. Possible variance?.

Winter training will be completed month of November.

Remaining Avalanche signs will be installed when Av branch recommends.

s.17; s.21 Stake holder meeting to be scheduled.

Date accepted by MOT: [Click here to enter a date.](#)

Initials: _____

SECTION 4: NCR/OFI ISSUED

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

AUDIT REPORT – OFFICE COMPLIANCE / BONUS

WINTER PREPAREDNESS



Ministry of
Transportation
and Infrastructure

SECTION 1: AUDIT DETAILS

Audit Report #:
A07nov2012_rrcc

Service Area: SA01 - South Island

Name of Contractor: Mainroad South Island

Audit Date: November 7, 2012

Date Discussed with MC: November 15, 2012

Auditor: Rachelle Ray & Colin Coulter

Auditor Signatur: emailed to contractor

Attendee Register:

Name

Leon Bohmer
Todd McVey

Position

Operations Manager
QC/QA

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

Mainroad was able to demonstrate that they are well prepared for the winter season with equipment and product as well as staff training.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l)

RESOURCES

Equipment:

1. **What percent of the contractor's equipment is ready for the winter season? When will it be 100%?**

As of Nov 1 100% of the contractors equipment committed in the winter plan is ready. In addition to the committed equipment Mainroad has acquired several pieces of new equipment and is now over 100% prepared.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

2. What process was followed to ensure equipment readiness?

All equipment committed in the winter plan has been inventoried and inspected which is documented in the Winter Prep sheets.

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

Yes.

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

Mainroad has standing agreements with ^{s.22} for a "bare rental" or "all found rental" as needed. Mainroad has also acquired several new pieces of equipment to use in the event of a breakdown or large scale storm.

Findings:

Mainroad has all equipment ready to go for winter maintenance and a few back up plans to ensure that service and maintenance will be consistent.

Evidence – Records reviewed:

Provided Winter Prep Sheets which list all Plow Units and Application Units s.17; s.21 with Unit #, CVI date, date equipment was fitted and checked, date temperature gauge was checked, and date applicator outlet was checked. The sheets also list all employees by name, seniority, date winter orientation was completed, and assigned shift. All equipment and employees were broken down by yard.

Equipment Availability List which provides a description of each piece of equipment, its location, and its status (available, in for repair, etc.)

Email was provided from s.17; s.21
to backup equipment, but not labour, from s.17; s.21

Mainroad will have access

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

All areas identified in the winter plan have been stocked with all required products at or over the planned amount with the exception of the ^{s.17; s.21} Pit as it has been determined to no longer be required since the addition of the ^{s.17; s.21} Pit.

6. How will the contractor ensure a continual supply of salt this winter?

Mainroad is the primary supplier and distributor of salt for all areas of Vancouver Island. They own property at ^{s.17; s.21} as a reserve and ^{s.17; s.21} on standby to bring more salt from the mainland if required.

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Yes-Mainroad^{s.17; s.21}

8. Are adequate supplies of sand on hand at various locations?

Yes- see question 5

9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

The location and quantities have been determined based on need and deployment logistics as outlined in the winter plan.

10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Yes. Materials are tested during the production phase. Also Mainroad takes random samples from three different locations and sends to a 3rd party testing facility.

Findings:

All products meet ministry specifications and requirements and all areas are well stocked with the exception of s.17; s.21 though the winter plan does not reflect this.

Evidence – Records reviewed:

Master List of materials quantities and commitments for each area. Quantities are reported by each Road Manager monthly.

s.22

Winter Plan 2012-2013

Provided records of production testing from OK Industries as well as third party tests from PM Technical Services Ltd.

HUMAN RESOURCES:

11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

Mainroad hires auxiliary staff for the winter season. Requirements for staff levels are based on the winter plan.

12. Have all employees, including new hires, received winter orientation training

Yes all staff have received winter orientation which includes a 4 hour in field practical component. No staff can be assigned a shift without receiving training first.

13. What does the training cover? Is the training comprehensive?

The training is comprehensive and covers winter operations procedures, safety and hazards, equipment use, communications and radio use, which includes in field training.

Evidence – Records reviewed:

Shift tracking spreadsheet for each yard.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Training package which includes an Operator's Handbook, the agenda from Winter Orientation and the Manual which includes modules and an exam which all employees must pass, 90% minimum overall. Mainroad plans to split Winter Training into two streams for newer employees (< 5 years) and advanced training for experienced employees (> 5 years).

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

Pre-winter stakeholder meeting will be held Nov 13th and 14th.

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

Most analysis came as a result of feedback received at the term 8 winter agency meetings such as adding groups to contacts and acquiring new equipment. It did not appear that any feedback had been considered for winter of term 9.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

All school districts have been contacted and no changes are anticipated for this year. Most or all school bus routes are on Class 3 roads or higher.

Findings: No issues with communications were noted.

Evidence – Records reviewed:

Provided a Post-Winter Issues List of recommendations which were implemented after last winter. List included concerns from CVSE and BC Ferries.

Provided excerpts of phone conversations with each of the school boards. School bus route changes are not individually communicated to operators.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

Any changes get posted to assembly room walls and are displayed on winter planning maps.

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

Article 6 roads are added to block maps and RIMS road list, not individually communicated to operators. A master spreadsheet is submitted to the yards to each foreman who then updates a map.

Findings: Information is handed to foreman promptly though improvements could be made in method of delivery; for example the spreadsheet used to inform foreman of new roads is somewhat unclear of what the instructions are.

Evidence – Records reviewed: master spreadsheet

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

none

Date accepted by MOT: [Click here to enter a date.](#)

Initials: _____

SECTION 4: NCR/OFI ISSUED

none

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 1: AUDIT DETAILS

Audit Report #: _____

Service Area: SA02 - Central Island

Name of Contractor: Emcon Services Inc

Audit Date: November 8, 2012

Date Discussed with MC: November 14, 2012

Auditor: Johnathan Tillie

JT
Auditor Signature

Attendee Register:

Name

s.22

Position

Operations Manager, MOTI
Area Manager, MOTI
Area Manager, MOTI
Area Manager, MOTI
Bridge Area Manager, MOTI
Operations Manager, Emcon
Road Superintendent, Emcon
Road Superintendent, Emcon
Bridge Superintendent, Emcon
Quality Assurance Manager
Quality Assurance Trainee

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

The maintenance contractor, Emcon Services Inc. provided significant information regarding winter preparedness. The resources, materials, human resources and communication were compliant.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

NOTE: This is intended to be a comprehensive audit. All of the questions must be asked unless noted otherwise.

RESOURCES

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

Equipment:

1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

s.17; s.21 are ready for winter season. Front plows are ready and calibration is done, they just need to have the underbodies mounted.

They will be 100% on November 15. The trucks could be ready for winter in one day but are currently being used for ditching.

s.17; s.21 are used for brine and the rest are salt trucks.
s.17; s.21 in s.17; s.21 s.17; s.21 with front plow and sander for s.17; s.21

s.17; s.21

s.17; s.21 in s.17; s.21 – used if volume is high in s.17; s.21
s.17; s.21 on contract available for s.17; s.21 (if volume is high)

s.17; s.21 are on the road at any one time providing info.

s.17; s.21

- 33 sidewalks in SA2 to complete
- they are told when to go from the MC
- if snow accumulation is 3-4cm then the sub will just go
- bridges near schools are prioritized

s.17; s.21

- Sub will look after sidewalks (including pre-sanding and salting)
- About 8-10 structures in Port Alberni to complete
- Shovelling most sidewalks (some snow blower)
- Available 24/7

s.17; s.21

- About 10 structures
- s.17; s.21
- Snow Blower and physical labour
- Some pre-salt and sand

s.17; s.21

- s.22 is the sub
- Available 24/7
- A crew of s.17; s.21 depending on snow
- Shovels and snow blowers

Hwy 1 south s.17; s.21
-MC will use bridge crew

s.17; s.21

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- Contractor is available when required (for many areas)
- snow blower and shovels

Graders can be used for large volume or for winging (getting snow off of shoulders)
s.17; s.21 for clearing the fog line
and winging or subdivisions.

2. What process was followed to ensure equipment readiness?

Equipment readiness begins in early October depending on the work that is required for each truck. Brine trucks are the first because they may be needed the earliest. Single axles are checked early so that they are winter ready before they are insured.

Mechanics use schedule (Summary of Equipment Calibration in Area 02 Form) to check calibration and readiness.

Mechanics check to make sure everything is running/working if parts are changed.

MC keeps track of what trucks need to have underbodies mounted.

Shown Summary of Subcontractor Equipment Readiness 2012-2013 (includes sidewalk snow removal)

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

Yes, they are checked when the underbodies are mounted. There is no work to be done unless something is malfunctioning.

Brine trucks, foreman vehicles, QA pick up have road temperature gauges and all other equipment have air temperature gauges.

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

MC can call in extra mechanics. Mechanical is staggered with a 7 day shift pattern to cover weekends.

MC can bring in the subs to work extra time.

MC can call other extra equipment providers from other areas.

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

Salt Inventories^{s.17;}
s.21 cubic metres on the ground in SA2

Current Stockpiles:
s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

s.17; s.21

MC will pre-purchase s.17; s.21
Typical salt usage in SA2: s.17; s.21
Mainroad salt shed is s.17; s.21

is a typical year
so they haul salt all winter through hired trucks.

Brine:
Typical Brine Usage per year: s.17; s.21 depending on wet or non wet
Brine is made during the day and can be filled in less than a day for all sites.

s.17; s.21 17; s.21
s.17; s.21

Enough to do highway s.17; s.21

s.17; s.21 s.17; s.21
s.17; s.21

Enough to do highway s.17; s.21

s.17; s.21 s.17; s.21
s.17; s.21

Enough to do highway s.17; s.21

s.17; s.21 s.17; s.21

6. How will the contractor ensure a continual supply of salt this winter?

s.17; s.21

in s.17; s.21 s.17; s.21

tonnes has been pre-purchased from Mainroad for SA2 & SA3 and is hauled to yards throughout the winter. Getting extra salt is not an issue as s.17; s.21
s.17; s.21

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

Shown materials compliance certificate September 15, 2012. Chemical Analysis Report.
Mitsubishi Canada Ltd. Is the shipper.
It is testing for 95% or better salt. s.17; s.21

8. Are adequate supplies of sand on hand at various locations?

Sand was crushed in 2011.

Typical: s.17; s.21
Total s.17; s.21

s.17; s.21 s.17; s.21

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s.17; s.21

9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

Salt is located in a yard site. 1 non-yard site is ^{s.17; s.21} Pit due to location of use.
Based on past experience and winter conditions salt is loaded at yards. Yard location is acceptable to maintain proper response.
1 tandem of salt can cover the highway system in each area and is discussed with employees at the winter orientation.

10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Shown:

s.17; s.21

7; s.21

s.17; s.21

July 7, 2011 – July 14, 2011

July 16, 2011 – July 26, 2011

HUMAN RESOURCES:

11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas? Does the planned winter shift coverage match the QMS Winter Resource Deployment plan?

Emcon has run ads (Sept.28/12) for auxiliaries and has hired and maintained past returning employees. Ads in s.17; s.21

Emcon runs a 24/7 shift pattern, winter shift in all areas will begin mid-November:

s.17; s.21 has a staggered shift 24/7 coverage, 2 day and 2 night average (shifts overlap)

s.17; s.21 has a staggered shift 24/7 coverage, 2 day and 2 night average (shift overlap)

s.17; s.21 has a staggered shift 24/7 coverage, 2 day and 2 night average (no overlap)
8am/4pm/12am are the shift changes. Day shift and night shift have foreman.

s.17; s.21 has 2 x 10 hour shifts (1.5 hour gaps) 6:00am-4:30pm and 6:00pm-4:30am. Staff will stay overtime if winter weather. 1 guy in Ucluelet

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s.17; s.21 has a s.17; s.21 crew. With a light winter they do other work gravelling etc. They all work days (7 days) but agree to work nights if winter weather hits.

12. Have all employees, including new hires, received winter orientation training

Winter Orientation and Senior Auxiliaries are trained together in October

s.17; s.21 October 25/12 s.17; s.21

s.17; s.21 October 30, 2012 s.17; s.21

s.17; s.21 : October 23, 2012 s.17; s.21

October 31, 2012 s.17; s.21

Auxiliaries and employees coming off disability are trained individually

13. What does the training cover? Is the training comprehensive?

Winter Orientation: Emcon has a handbook that covers all winter activities and they go through the book every year with all employees (Supervisors, operators and auxiliaries)

Training Topics: Material Coverage, Salt Application, Anti-Icing Application, Winter Abrasive Application, Pre-Wet Application, Winter Highway Patrol, Black Ice, Freezing Rain, Compact Snow, Slush, Work Reporting, Pit Areas, Tire Chains, Low Wires, Vehicle Accidents, Pre-Trip/Post-Trip Inspections, Vehicle Servicing, Safety, Radio Communication, Plowing Hazards, MOTI Highway Specifications, QMS

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

Yes, the winter stakeholder meetings were held in various areas across the SA. Stakeholders were invited for each meeting.

Gabriola – Oct.15/12

Parksville – Oct.16/12

Port Alberni - Oct.17/12

Ucluelet – October 19, 2012

Nanaimo - Oct.18/12

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- Parksville bus route changes.
- Overhead message board at Coleman Road/Ucluelet message board (better usage for storms). Foreman in Port Alberni and Ucluelet will call PHCC to update the board with messages to warn of winter weather
- MC discussed intersection snow removal (due to MOTI feedback from previous year) and whether they should plow in/plow out (during busy period and high traffic) or back up and plow (night time and good visibility)
- MC discussed plowing turn slots (due to MOTI feedback) and multi lane plowing.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

- Yes, no changes in Nanaimo and Gabriola. SD provided a new map and MC shared with MOTI.
- Yes, small turnaround changes in Parksville.
- Yes, no changes in Port Alberni or Ucluelet.

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

- plow blocks are communicated to operators but there were no route changes.

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

- Changes have been added to the plow blocks and communicated to the operators.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Date accepted by MOT: November 14, 2012

Initials: _____JT_____

SECTION 4: NCR/OFI ISSUED

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SECTION 1: AUDIT DETAILS

**Audit Report #: SA03-
201211 PreWinter**

Service Area: SA03 - North Island

Name of Contractor: Emcon Services Inc

Audit Date: November 14, 2012

Date Discussed with MC: [Click here to enter a date.](#)

Auditor: Bob O'Brien

Auditor Signature

Attendee Register:

Name

s.22

Position

Operation Manager MOTI
Area Manager

Operations Manager
Road Superintendent
Road Superintendent
Road Superintendent
Quality Assurance
Quality Assurance

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

Emcon Services has prepared for the winter of 2012/13.

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

COMMUNICATIONS:

External:

1. Have pre-winter stakeholder meetings been held?

Evidence – Records reviewed:

- Agenda for winter preparedness meetings with stakeholders (common for all sites)

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

- Fax sheet for invitation to meetings
- Emergency call out list (distributed at meetings)
- Minutes not produced for meetings that have occurred.
- Verbally evidenced that minutes will be faxed to all invitees once complete.

Findings:

- Pre-winter meetings have been held in Gold River, Campbell River, Port Hardy, Sayward, Cumberland, Port McNeil. Quadra scheduled for Quadra in early December, others not scheduled.
- Major stakeholders invited to meetings.

2. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

Evidence – Records reviewed:

- Verbal evidence of changes

Findings:

- Changes were made as a result of stakeholder input:
 - Shift change times adjusted in Pt. Hardy, Woss, and Sayward in response to PCR's
 - Shift change times adjusted on Mount Washington to provide better service in rush times.
 - More brining for Woss Sayward area, pup currently being fitted out for slide in tank.
 - Sand reserve added near Roberts Lake
 - Mount Washington, below 10 k, will widen out area for snowmobilers
 - Gold River Mayour asked for split shifts but idea was rejected after consideration.

3. Has the contractor ensured that an updated list of school bus routes is used to plan their winter storm response? Have any changes been communicated to the operators?

Evidence – Records reviewed:

- Agenda for pre-winter meetings
- Map of Campbell River area showing school bus routes
- Last year's plow blocks

Findings:

- School bus routes are adjusted as per input from SD's, communicated through plow blocks to operators

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

4. How does the contractor ensure calls to their office are handled effectively, is there a response protocol for main office...satellite offices?

Evidence – Records reviewed:

- Verbal evidence of process
- Emergency Call Out Order

Findings:

- 1-866 calls results in passing concerns to proper crew for response and paper trail of issue
- K30 contacted by radio results in fax to office
- Emergency numbers distributed at pre-winter meetings
- Satellite offices depend on answering machines for direct calls

5. Does the contractors telephone system have the capacity to handle calls in high volume periods in the main office...satellite offices?

Evidence – Records reviewed:

- Verbal evidence only

Findings:

- Main office has 5 in lines answered during regular work hours and answer machines other times
- Message references 1-866 number for emergency calls
- Satellite offices have answering machines.

Internal:

6. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

Evidence – Records reviewed:

- Verbal evidence only

Findings:

- Changes have not been communicated to operators
- Changes to plow blocks expected next week, then will go to operators.

7. Have all employees been trained on the communication requirements for MOTI regarding Drive BC and critical incident?

Evidence – Records reviewed:

- Emergency Binder (1 for each yard), has messaging protocol included
- Winter Orientation Agenda
- Training records
- Verbal evidence of 13 points being discussed at foreman level.

Findings:

- Employees to the foreman level have had some training on communication requirements.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

8. How will field staff communicate the 13 points to MOTI staff?

Evidence – Records reviewed:

- Verbal evidence use phone and e-mail

Findings:

- 13 point information will be communicated by phone or e-mail

HUMAN RESOURCES:

9. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas? Provide evidence of human resource planning, including contingency planning for illness, long duration storms, etc. for the Courtenay area, Quadra and Cortez Islands, and Sayward areas.

Evidence – Records reviewed:

- Summary of Subcontractor Equipment Winter Readiness (all yards)
- Quadra Operator Contact List
- Emcon Services Auxiliary Seniority Lists: s.17; s.21
- Advertisements for new operators in papers

Findings:

- Contractor has done contingency planning for human resourcing.

10. Have all employees, including new hires, received winter orientation training

Evidence – Records reviewed:

- Viewed Explorer program, shows what each employee has trained on.
- Winter Truck Plow Training document
- Truck Driver Certification Criterion

Findings:

- All employees receive winter orientation.

11. What does the training cover? Is the training comprehensive?

Evidence – Records reviewed:

- Winter Truck plow Training checklist and process
- Truck driver Certification Criterion
- Training matrix in Explorer program

Findings:

- Comprehensive training is provided.

12. What resources are available to provide traffic control across the Service Area?

Evidence – Records reviewed:

- Emergency Binder (1 for each yard), has contact name and numbers for available flaggers

Findings:

- Contractor has plan and resources to provide traffic control across Service Area.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

RESOURCES

Equipment:

13. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

Evidence – Records reviewed:

Findings: The Contractor has 84% of trucks ready for winter, will be 100% next week.

14. What process was followed to ensure equipment readiness?

Evidence – Records reviewed:

- Summary of Equipment Calibration in Area03 sheet
- Verbal evidence of weekly meetings to discuss and track equipment readiness

Findings:

- The Contractor has a sheet to track equipment readiness

15. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

Evidence – Records reviewed:

- Summary of Calibration (Winter 2012/13), shows date calibrated for all equipment
- Temperature guns are not calibrated, checked at RWIS stations informally

Findings:

- Salt/sand spreaders are calibrated.

16. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

Evidence – Records reviewed:

- Verbal evidence, 6 day coverage in their shop, use of outside shops when required.
- Use of sub-contractor equipment
- Use of adjacent area resources

Findings:

- Contractor has a backup plan for breakdowns during winter storms.

Materials:

17. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

Evidence – Records reviewed:

- Verbal evidence, multi year supply of salt is available at all sites

Findings:

- Adequate supplies of de-icing chemicals are on hand.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

18. How will the contractor ensure a continual supply of salt this winter?

Evidence – Records reviewed:

- Verbal evidence of multiyear supply of salt in all sites

Findings:

- The Contractor has a continual supply of salt this winter.

19. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

Evidence – Records reviewed:

- Only use ^{s.17; s.21} on the list
- s.17; s.21 (Chemical analysis)

Findings:

- Chemicals used by contractor are on the approved list.

20. Are adequate supplies of sand on hand at various locations?

Evidence – Records reviewed:

- Verbal evidence, ^{s.17; s.21} of sand in all areas exists.

Findings:

- Adequate supplies of sand are in all areas

21. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

Evidence – Records reviewed:

- Verbal evidence, all salt sheds full

Findings:

- Quantities of salt have been determined in each area.

22. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Evidence – Records reviewed:

- Internal Evaluation of Pits ^{s.17; s.21}
- s.17; s.21 Crushing test results

Findings:

- Winter sand has been tested

GENERAL

23. What changes have been made to the winter program from last year?

Evidence – Records reviewed:

- Verbal evidence only

Findings:

- Shift changes ^{s.17; s.21}
s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

nil

SECTION 4: NCR/OFI ISSUED

nil

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

AUDIT REPORT – OFFICE COMPLIANCE / BONUS

WINTER PREPAREDNESS



Ministry of
Transportation
and Infrastructure

SECTION 1: AUDIT DETAILS

Audit Report #: 3A

Service Area: Click to choose SA

Name of Contractor: Emil Anderson

Audit Date: November 14, 2012

:

Auditor: Brad Grunberg

Auditor Signature

Attendee Register:

Name

Position

Area Manager
Area Manager
Quality Control Manager
Superintendent
Superintendent
Operations Manager

s.22

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

Attachments (e.g. photos, monitoring records, public complaints, etc.):

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

RESOURCES

Equipment:

1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

EAM currently has 95% of their winter fleet ready for operations. They expect to be 100% by the end of the day.

EAM presented a list of loaders and their daily work plans were reviewed.

Thes.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

2. What process was followed to ensure equipment readiness?

The Mechanical Department was given target dates of November 1st and November 15th.
Manpower has been increased to achieve this task.
The Annual Work calendar was shown as well as the weekly wear sheets.

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

Calibration was shown on the daily work sheets as well as thermometers in the foremans vehicles.

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

The west end will support the east end if required.
A list of registered sub contractors is maintained.
s.17; s.21 are available for the s.17; s.21 as well as s.17; s.21

Findings: EAM has a backup strategy in place.

Evidence – Records reviewed:

2012 Hired Equipment list.
Daily work Plan
Equipment Condition Sheet.

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

Yes
s.17; s.21 and Mainroad are there suppliers and they have secured 50% above average material with them.

6. How will the contractor ensure a continual supply of salt this winter?

They have secured 50% above average material with s.17; s.21 and Mainroad.

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

Yes
Reports from suppliers show that they meet Ministry Standards.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

8. Are adequate supplies of sand on hand at various locations?

Yes winter abrasives is being produced in several pits.

9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

Yes, EAM has produced a ^{s.17; s.21} supply.

10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Findings: Yes it has been sampled and tested.

Evidence – Records reviewed:

Sieve tests were provided from ^{s.17; s.21}

HUMAN RESOURCES:

11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

The contractor supplements their staff with auxiliary employees for the winter season.

12. Have all employees, including new hires, received winter orientation training

Training is currently in progress for First Aid and Avalanche training.

13. What does the training cover? Is the training comprehensive?

Findings: Training covers orientation, safety, equipment, first aid and avalanche.

Evidence – Records reviewed: Winter Equipment Orientation

New Hire Training manual

Safety policy

Traffic Control

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

Yes – October 23/24, 2012,

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

Yes, protocol for access to CN Rail lines during highway closures is being looked at.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

Findings: Yes the school district attended the stakeholder meeting.

Evidence – Records reviewed: N/A

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

N/A

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

Findings: N/A

Evidence – Records reviewed:

WHERE APPLICABLE:

19. Has avalanche training been delivered?

Not yet, it is scheduled.

20. Have avalanche signs been erected?

Yes

21. Have avalanche gates been checked to ensure they are functional?

Findings: Yes

Evidence – Records reviewed: Verbal confirmation was received from EAM.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

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Withheld pursuant to/removed as

s.17 ; s.21

AUDIT REPORT – OFFICE COMPLIANCE / BONUS

WINTER PREPAREDNESS



Ministry of
Transportation
and Infrastructure

SECTION 1: AUDIT DETAILS

Audit Report #: 03B

Service Area: SA07 - Fraser Valley

Name of Contractor: Emil Anderson

Audit Date: November 14, 2012

Date Discussed with MC: [Click here to enter a date.](#)

Auditor: Les Gilburg

Auditor Signature

Attendee Register:

Name

s.22

Position

Area Manager
Area Manager
Quality Control Manager
Superintendent West End

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

EAM is in good shape to respond to the 1st winter storm. There are several items that they are currently working on to complete their winter preparedness, s.17; to finish, sand hauls to complete, crew training, however most of the equipment is ready, sand and salt supplies are 100% in some yards and close to being completed in others and the crews are assigned to the shifts for each yard and are being trained for winter activities.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

See below

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

RESOURCES

Equipment:

1. **What percent of the contractor's equipment is ready for the winter season? When will it be 100%?**

EAM currently has about 95% of their winter fleet ready for winter operations. They expect to be 100% by the end of the day.

s.17; s.21

Documents reviewed: daily work plans.17; s.21

2. **What process was followed to ensure equipment readiness?**

The mechanical department determines what needs to be completed on a vehicle so that it is ready for winter service. Target dates are set in August for shops; s.17; Nov 1, s.17; s.21 Nov 15. Shops determine what manpower is required to meet the deadline. Some work is sent out to outside shops and the rest is done in house. Shop manpower was increase by s.17; s.21

Documents reviewed: Winter Wear Parts Inventory count, QM – Monthly Reminder Calendar.

3. **Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?**

The calibrations of the above items have been completed. Mechanical shop has calibrated the s.17; s.21 by running salt and sand into a box of known volume and measuring the time it takes to fill. The thermometers and temperature guns are calibrated by measuring the temperature of a bucket filled with ice and water.

Documents reviewed: Daily work plan – s.17; s.21 Shop – Unit Readiness – calibration spreadsheet

4. **Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?**

During a winter storm EAM uses all roadworthy equipment available. They service and repair equipment before a storm and between storms, depending on the level of service required, in preparation for the next storm. They have s.17; s.21 waiting for in service vehicles to break down. They have mechanics on duty and on call to repair and service vehicles during a storm. If a storm is localized they will send equipment from a neighbouring foreman area to support the winter maintenance. There are s.17; and s.17; s.21 available in the hired equipment list if they are needed.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Documents Reviewed: 2012 registered hired equipment for all areas list

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

EAM has ordered ^{s.17; s.21} which has been supplied to all salt sheds; nearly all are full.
^{s.17; s.21} and is in stock for brine making.

Evidence – Records reviewed:

Spreadsheet showing capacities of salt & sand at yards in the west end.

6. How will the contractor ensure a continual supply of salt this winter?

EAM has a contract to ^{s.17; s.21} and ^{s.17; s.21} to guarantee a ^{s.17; s.21} supply of salt for winter use. They have contract haulers deliver their salt to each site. They can move salt from one salt shed to another if required.

Evidence – Records reviewed:

^{s.17; s.21} – doc to guarantee up to ^{s.17; s.21} to EAM for 2013/2013 winter.
^{s.17; s.21} – doc to guarantee up to ^{s.17; s.21} to EAM for 2013/2013 winter.

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

Yes. ^{s.17; s.21}

Evidence – Records reviewed:

^{s.17; s.21} testing for solar salt March 13, 2012

8. Are adequate supplies of sand on hand at various locations?

Yes. EAM produced a ^{s.17; s.21} this year and have moved material from there to stockpiles in ^{s.17; s.21} The salt sheds also have stockpiles of sand with ^{s.17; s.21} on one side.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

Locations are existing and have been used for many years. Quantities are based on the size of the salt shed and the historical use.

10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Yes. Sand was tested during production by ^{s.17; s.21}

Evidence – Records reviewed:

Sieve Test from ^{s.17; s.21}

November 05, 2012: passed.

HUMAN RESOURCES:

11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

EAM has completing the process of recruiting, interviewing and hiring staff for the winter season. They are in the process of training winter staff. They have 2 positions to fill and then they are complete. EAM has ^{s.17; s.21} for winter for a total of ^{s.17; s.21} employees. They have filled all positions for the winter shifts at each yard. Staffing numbers are determined by historical needs and the number of positions to fill the shifts required to cover 24/7 operations at each yard

12. Have all employees, including new hires, received winter orientation training

No, the hiring has been completed and training has started and is ongoing.

Documents Reviewed: Traffic control @ emergency scene training, ^{s.17; s.21} Nov 17, 2012, Avalanche training schedule for ^{s.17; s.21}, Nov 22 & 23, 2012, Training Record Spreadsheet – 2011/2012

13. What does the training cover? Is the training comprehensive?

There is a training manual and a 20 page orientation package with a checklist for new employees. All employees are required to peer train in the equipment. Some of and not all of the training includes; front plow use, plow blades installation, application rates for sand, salt and brines, weather forecasting, plowing sanding and brine procedures, geographical areas and special features, avalanche training and rescue.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Evidence – Records reviewed:

Winter Equipment Orientation
Employee Orientation Package.
Incident Summary

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

Yes, a Stakeholder meeting held on October 24, 2012 in Chilliwack attended by MOT, RCMP, Abbotsford Police, ambulance, City of Abbotsford operations, City of Chilliwack operations, School District.

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

A protocol for CN/CP crew access to their rail sites during our emergency highway closures is being developed in response to their concerns.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

The school boards attended the winter meetings and have no new changes from last year to EAM.

Evidence – Records reviewed:

Not available

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

The foreman has no changes to pass on to the crews.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

There are no new Article 6 changes.

Evidence – Records reviewed:
NA

WHERE APPLICABLE:

19. Has avalanche training been delivered?

Avalanche Training is scheduled for November 21 & 22, 2012 for all new employees and those requiring recertification.

20. Have avalanche signs been erected?

Yes sign crew did this in October. Signs are covered and will be uncovered at Avalanche Techs request. New chains up signs are being installed. DO NO PASS SNOWPLOW signs are being installed.

21. Have avalanche gates been checked to ensure they are functional?

Freeway closure gates are being serviced in the Abbotsford area to be ready for Sumas Prairie winter storm closures.

Evidence – Records reviewed: Discussion with Superintendant and Road Foreman.

22. Is there anything else EAM is doing that you would like to add?

Shift into winter program has started; newspaper ads and radio spots for the next 2 weeks and again in middle of winter. Weathernet is running again

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

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Withheld pursuant to/removed as

s.17 ; s.21

AUDIT REPORT – OFFICE COMPLIANCE / BONUS

WINTER PREPAREDNESS



Ministry of
Transportation
and Infrastructure

SECTION 1: AUDIT DETAILS

Audit Report #: 01-7C

Service Area: SA07 - Fraser Valley

Name of Contractor: Emil Anderson

#3C

Audit Date: November 14, 2012

Date Discussed with MC: December 6, 2012

Auditor: Anne Hazlewood

Auditor Signature

Attendee Register:

Name

Position

Operations Manager
Quality Control Manager
Superintendent
Superintendent

Operations Manager
District Engineer
Area Manager
Area Manager
Area Manager

pic of Audit:

Winter Preparedness for Fraser Valley East including Hope, Boston Bar and Allison Pass Areas

Overall Summary of Findings:

The Contractor is prepared for the winter season.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

RESOURCES

Equipment:

1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

s.17; s.21

s.17; s.21

s.17; s.21

s.17; s.21

s.17; s.21

not set up yet, s.17; s.21

All are ready.

All but one from s.17; s.21

are ready.

are ready.

are ready.

Ready.

2. What process was followed to ensure equipment readiness?

Mechanics are directed to give priority to vehicle readiness, over other duties.

Noted on Annual Reminder Calendar in August.

Mechanics directed to have equipment ready for November 1st and approval given to increase manpower as necessary to achieve deadline.

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

Shown on daily work plan.

Static thermometers changed as required.

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

West end will support the East end in the event of breakdown or severe weather event.

A list of registered hired equipment sub contractors is maintained.

Graders are available when required.

Added s.17; s.21

Findings:

s.17; s.21

are ready for winter operations, s.17; s.21

are in the shop and will

be ready within the next 2-3 days.

Evidence – Records reviewed:

2012 Register of Hired Equipment

Daily Work Plan

Spread sheet showing all equipment condition, location etc.

Copy of annual reminder calendar

s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

Yes.

The Contractor stated that each shed is approximately ^{s.17; s.21} full, although no records were available to show how much salt has been delivered.

6. How will the contractor ensure a continual supply of salt this winter?

The Contractor has contracts with ^{s.17; s.21} which guarantees availability of a quantity of sand equal to ^{s.17; s.21} of the previous 10 year average usage.

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

Yes.

Report from suppliers showing that the product delivered meets the MOTI standard specifications.

8. Are adequate supplies of sand on hand at various locations?

Yes.

The Contractor has been producing sand at ^{s.17; s.21} Pits for several weeks. This product is distributed to the other sheds in the area.

9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

Quantities were determined based on the average of previous years usage.

The Contractor reports that they have crushed enough sand for ^{s.17; s.21} use and have guaranteed supply of ^{s.17; s.21} of average use of salt.

10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Yes.

Sieve tests for each pit were provided.

Findings:

The Contractor has adequate supplies of product on hand and the availability of further supplies if necessary.

Evidence – Records reviewed:

Sieve tests for each pit indicating product within Specifications

All Salt sheds and pits were visited including:

^{s.17; s.21} Pit

^{s.17; s.21} Yard

^{s.17; s.21} Pit

^{s.17; s.21} Yard

^{s.17; s.21} Pit

^{s.17; s.21} Pit

^{s.17; s.21}

^{s.17; s.21} Pit

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

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Withheld pursuant to/removed as

s.17 ; s.21

Findings:

Crews receive adequate training.

Evidence – Records reviewed:

Winter Equipment Orientation
Safety Policy
Hiring Package.

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

Yes.

s.17; meeting was held at the s.17; s.21 on October 23 2012. The meeting was attended by a variety of stakeholders.

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

Yes.

The Contractor is working on a protocol for access to CN rail lines during road closures.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

Yes.

A representative from the School District attended the Stakeholder meeting and reported no changes for this year.

Findings:

The Contractor consulted with the School District.

Evidence – Records reviewed:

The Auditor attended the stakeholder meeting.

Internal:

- 17. Have winter operational or school bus route changes been communicated to the operators?**

N/A

- 18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?**

N/A

Findings:

Evidence – Records reviewed:

WHERE APPLICABLE:

- 19. Has avalanche training been delivered?**

Training has not been delivered but is scheduled.

- 20. Have avalanche signs been erected?**

Yes.

Signs are uncovered as per the direction of the Ministry Avalanche Tech. This direction has not yet been given.

- 21. Have avalanche gates been checked to ensure they are functional?**

Yes

Findings:

The Contractor verbally reported that all the gates have been checked and repaired as necessary.

Evidence – Records reviewed:

No records provided.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

None

Date accepted by MOT: [Click here to enter a date.](#)

Initials: _____

SECTION 4: NCR/OFI ISSUED

None

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

SECTION 1: AUDIT DETAILS

Audit Report #:
10/29/12

Service Area: South Cariboo - 17

Name of Contractor: Interior Roads Ltd.

Audit Date: October 29, 2012

Date Discussed with MC: October 29, 2012

Auditor: Dan Palesch

Auditor Signature

Attendee Register:

Name

Position

s.22

Operations Manager
District Operations Technician
Assistant Area Manager
Quality Manager
Operations Manager
Operations Coordinator
Equipment Manager

Topic of Audit:

Winter Preparedness

Overall Summary of Findings: Contractor attendance and level of interest was very good. Involvement with mechanical and operational sections was beneficial and facilitated meeting an effective audit timeline. The Contractor indicated they are approximately 90% ready for winter. Trucks, loaders, graders, staffing, salt and sand quantities were outlined for each foreman area with reported sufficient amounts in accordance with QMS requirements (Contractor indicated although the QMS does not match the audit levels, changes were in the works). The Contractor explained their back-up plan in the event of a break-down during a winter storm including mechanical response and sub-contract assistance. De-icing materials have been ordered and fall within the recognized products list. Most stakeholder meetings have been held, with 3 more scheduled. Avalanche training is set for November 16. The avalanche signs and gates are ready for the season. Contractor equipment and resources are noted within audit table inventories, and assumed to be accurate at time of audit for each foreman area. Contractor has indicated all sub contracts are in place in all areas of SA for all available equipment to be used in accordance with QMS requirements.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

Winter shift schedules/equipment and resource levels as indicated in QMS/inventory list from previous winter preparedness submission/QC/QA results from winter sand production

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

NOTE: This is intended to be a comprehensive audit. All of the questions must be asked unless noted otherwise.

RESOURCES

Equipment:

1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

The contractor indicated that they are at 90% for winter readiness. The sand quality management testing is to be received in the next 2 weeks

s.17; s.21	
Trucks	s.17; s.21
Staff	s.17; s.21
Pits	s.17; s.21
Salt	s.17; s.21 in a few weeks
Sand	s.17; s.21
s.17; s.21	
Trucks	s.17; s.21
Staff	s.17; s.21
Pits	s.17; s.21
Salt	s.17; s.21
Sand	Producing and hauling to s.17; s.21
s.17; s.21	
Trucks	s.17; s.21
Staff	s.17; s.21
Pits	s.17; s.21
Salt	No salt needed due to seal coat
Sand	s.17; s.21 currently, crushing at least s.17; s.21
s.17; s.21	
Trucks	s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Staff	s.17; s.21	s.17; have received training
Pits	s.17; s.21	All have s.17; s.21
Salt	s.17; s.21	
Sand	s.17; s.21	
s.17; s.21		
Trucks	s.17; s.21	**** s.17; s.21 subcontractor has been trained – hired for winter snow removal with s.17; s.21 s.17; s.21 on call **** s.17; s.21 to look after s.17; s.21 – operators have all be trained -Salt for s.17; s.21
Staff	s.17; s.21	Bridge crew now working on road crew; s.17; staff and sub-contractors have received training
Pits	s.17; s.21	s.17; s.21 have s.17; s.21 waiting for s.17; s.21
Salt	s.17; s.21	
Sand	s.17; s.21	
s.17; s.21		
Trucks	s.17; s.21	
Staff	s.17; s.21	s.17; have received training
Pits	s.17; s.21	s.17; s.21 one being sourced for s.17; s.21
Salt		
Sand	s.17; s.21	
s.17; s.21		
Trucks	s.17; s.21	
Staff	s.17; s.21	s.17; have received training
Pits	s.17; s.21	s.17; s.21
Salt	s.17; s.21	
Sand		

2. What process was followed to ensure equipment readiness?

As directed through equipment manager in s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

IRL indicated these have been completed in all computers onboard trucks.

4 Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

Findings:

s.17; s.21 is located in s.17; s.21 and s.17; s.21. The mechanics travel to remote areas once a week to fix vehicles. The Contractor is looking to hire s.17; s.21. The plan over the next year is to s.17; s.21. The s.17; s.21 will be spreads over SA 16 & 17. Vehicle audits with CVSE have resulted in 0 out-of-service vehicles.

Evidence – Records reviewed:

Materials:

4. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

The product has been ordered in SA 16 (dated Oct. 26/12 as evidence during SA 16 audit). The contractor loads the product in s.17; s.21. s.17; s.21 are pre-loaded with s.17; s.21. s.17; s.21 fully loaded available in the truck s.17; s.21. s.17; s.21 of de-icing product is stored in s.17; s.21 for the contractor. A heavy application uses s.17; s.21. A light application uses s.17; s.21.

5. How will the contractor ensure a continual supply of salt this winter?

Rely on s.17; s.21 to replenish salt supply ongoing through winter as necessary

6. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

Yes, the auditors reviewed the chemical Compliance Certificate from s.17; s.21 dated September 1, 2012. It is estimated that s.17; s.21 are used in a typical winter for the s.17; s.21 airport. The contractor currently has s.17; s.21 in stock.

7. Are adequate supplies of sand on hand at various locations?

See chart table

8. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

As per QMS

9. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Findings:

The contractor agreed to provide QC/QA results from winter sand production and various locations once received from sub-contractor.

Evidence – Records reviewed:

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

HUMAN RESOURCES:

10. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

See chart/table

11. Have all employees, including new hires, received winter orientation training

No

12. What does the training cover?

13. Is the training comprehensive?

Findings:

The contractor has trained several staff and is ongoing. QMS states contractor must complete all pre winter awareness training prior to start of winter maintenance.

Evidence – Records reviewed: Several documents were evidenced to show sign in sheets for staff who attended training sessions.

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

Yes, below is a list of the stakeholders that have been involved in the meetings:

Anahim airport/CCRD

School district 49

School district 27

RCMP

Williams Lake – 1 stakeholder

Bella Coola – 2 stakeholders

Alexis Creek – 12 stakeholders

Tatla Lake – 3 stakeholders

Anahim Lake – 1 stakeholder; met with RCMP separately

Likely – 4 stakeholders

Horsefly – 5 stakeholders

WL Mayor and council

Cattlemen's Association

***CRD – still trying to schedule the meeting*

Big Creek Nov. 6

Tolko Safety meeting Nov. 21

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

s.17; s.21

was added.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Changes to the front plough at Anahim airport have been implemented.
An extra sub-contractor in s.17; s.21 has been added.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes? yes

Findings:

The contractor provided evidence they have met with school district stakeholders for pre-winter training

Evidence – Records reviewed: meeting minutes/stakeholder lists

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

Findings:

IRL uses manuals provided in trucks and winter awareness training to ensure operators are aware of school bus routes.

Evidence – Records reviewed: operations manuals

WHERE APPLICABLE:

19. Has avalanche training been delivered?

Scheduled for Nov. 16

20. Have avalanche signs been erected?

Yes October 26, 2012

21. Have avalanche gates been checked to ensure they are functional?

Foreman has the paint for the gates in Bella Coola and will paint as soon as practicable.

Findings:

Avalanche gates are in need of painting to be completed.

Evidence – Records reviewed:

22. (optional additional question) (Assessing: if different from other questions)

Findings:

Evidence – Records reviewed:

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Paint avalanche gates

Provide quality assurance/quality control for winter abrasives

Provide winter shift schedules

Date accepted by MOT: [Click here to enter a date.](#)

Initials: _____

SECTION 4: NCR/OFI ISSUED

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 1: AUDIT DETAILS

Audit Report #:
11/06/2013

Service Area: SA17 - Central Cariboo

Name of Contractor: Interior Rds

Audit Date: November 6, 2013

Date Discussed with MC: [Click here to enter a date.](#)

Auditor: Dan Palesch

Auditor Signature

Attendee Register:

Name

s.22

Position

Operations Manager, IRL
Quality Manager, IRL
Mechanical Foreman
Operations Assistant, IRL
A/District Ops Tech, MOTI
Operations Manager, MoTI

Topic of Audit:

Winter Preparedness Office Audit

Overall Summary of Findings:

The contractor's records and information provided indicate they are winter ready in accordance with their QMS requirements. IRL indicated they have exceeded the equipment as noted in their resource deployment plan, and have sufficient staff and sub-contractors to respond to all winter events.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

NOTE: This is intended to be a comprehensive audit. All of the questions must be asked unless noted otherwise.

RESOURCES

Equipment:

1. **What percent of the contractor's equipment is ready for the winter season? When will it be 100%?**
 - Trucks are ready to plow and sand, equipped with front plows, underbody plow and wings.
 - Boxes are ready, except for belly.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

- All equipment has been checked and completed in accordance with Schedule 12 of the maintenance agreement.
- Pre-trips are required to be completed by a driver on every shift.
- s.17; s.21 calibrated.
- s.17; s.21
- s.17; s.21
- s.17; s.21
- s.17; s.21
- s.17; s.21
- s.17; s.21
- s.17; s.21

2. What process was followed to ensure equipment readiness?

- s.17; s.21 is currently in the shop for box change over.
- s.17; s.21 with completely rebuilt wings, only s.17; s.21 to put wings on.
- Getting trucks ready earlier in season to relieve urgency when weather conditions change.
- Installed improved winter tires on heavy trucks.
- Some trucks are ready w/pre-wet.

3. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?

- Spreader calibrations completed.
- Temperature guns have been calibrated and temperature gauges in s.17; s.21 to be calibrated. (document checklist was noted with dates checked).

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

- s.17; s.21 available if needed as spare.
- Will obtain trucks from s.17; s.21 if unable to repair
- Will call mechanic in to repair trucks as needed on overtime
- Have substantial equipment/parts for breakdowns currently in stock but was noted certain part supplies can be a challenge at times
- Overlapping boundaries (foreman boundaries) (IRL to submit updated foreman boundary map to MoTI)
- Hired extra operator in s.17; s.21 (operational change from previous; s.17; s.21 foreman area to now look after all of the hill for winter maintenance).
- Operators to check in w/each other every 2 hours to ensure consistency and updates.

s.17; s.21

Sub-Contractor resource Plan:

- Obtain equipment from s.22 as needed
- s.22 on contract for s.17; s.21
- s.22 on contract for s.17; s.21
- s.22 s.17; contract for s.17; s.21
- s.22 s.17 contract for s.17; s.21 s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

- s.22 s.17; s.21 equipment – s.17; s.21
- s.22 no contract in place and for use only as needed
- on s.17; s.21 no longer will be used in s.17; s.21
- s.22 s.17; s.21
- s.22 equipment.

Bella Coola Area:

- s.22 _ s.17; s.21 s.17; s.21
- s.22 _ s.17; s.21

Findings: IRL has extensive sub-contract/hired equipment availability for use in the event of storm or other response as contingency in accordance with their QMS deployment strategy for moderate to heavy snowfall.

Evidence – Records reviewed: Pre-Winter action plan – to be emailed to MoTI

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

As of time of audit, stockpile inventory as follows:

- s.17; s.21
- s.17; s.21
- s.17; s.21
- s.17; s.21
- s.17; s.21
- s.17; s.21
- s.17; s.21

6. How will the contractor ensure a continual supply of salt this winter?

- Surveyed monthly
- Total of s.17; s.21 of them
- IRL committed to using s.17; s.21 to supply salt on a regular basis as needed.

*** IRL to check salt sheds for evapo-transpiration status.

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

- Compliance certificate dated April 4, 2013 from Lafarge
- Certificate of compliance for anti-icing (to be submitted to MoTI)

8. Are adequate supplies of sand on hand at various locations?

The contractor's records indicate they have adequate salt inventory in pre-determined locations across SA.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

9. How has the contractor determined the locations and quantities of salt stockpiles in each foreman area?

Contractor updates and compiles salt inventory monthly.

10. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Findings: IRL provided samples of QC/QA for winter sand abrasive production indicating they were within specifications.

Evidence – Records reviewed:

QC/QA samples.

- Copies to be emailed to MoTI

HUMAN RESOURCES:

11. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

- Shift schedules– (to be emailed to MoTI)
- Hired extra operators: s.17; s.21
- Williams Lake - 24 hour coverage.
- Horsefly - 24 hours (M-F w/staggered schedules on weekends)
- Alexis Creek – staggered schedules

12. Have all employees, including new hires, received winter orientation training

- s.17; s.21 to be trained and one to be repeated.
- All other employees have received winter awareness training.
- Exceeded auxiliary requirements within resource deployment plan.

13. What does the training cover? Is the training comprehensive?

- Different training programs for experienced and new operators
- In process of making training DVD videos in winter conditions, plowing sanding, chaining up, how to install front mount, etc.
- Made video for pre-trip inspections.
- After new hires receive orientation, they work in the field for 2 weeks then will receive additional training and are re-tested then return to the field for additional hands on training.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

SECTION 1: AUDIT DETAILS

Audit Report #: 409

Service Area: SA12 - Selkirk

Name of Contractor: HMC Services Inc

Audit Date: **October 26, 2012**

Date Discussed with MC: **October 26, 2012**

Auditor: Art McClean – Ops Manager

Auditor Signature

Attendee Register:

Name

Derek Thur

Position

Operations Manager - HMC

Topic of Audit:

Winter Preparedness

Overall Summary of Findings:

The Maintenance Contractor has taken appropriate steps to be prepared for the 2012-13 winter season. Minor works remain on equipment which are scheduled to be completed in advance of any serious weather issues. Additions to the fleet are expected to provide better opportunity for service delivery including s.17; s.21 and s.17; s.21 Introduction of s.17; s.21 in the s.17; s.21 area will be an improvement. Balancing its needs with the s.17; area will be a challenge.

Attachments

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (i) (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

RESOURCES

Equipment:

- 1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?**

Approx 90% of the fleet is ready for winter. s.17; s.21
s.17; s.21

November 15 is target date for full readiness.

- 2. Has the calibration of salt/sand spreaders, thermometers and temperature guns been completed?**

Calibrations will be completed s.17; s.21 are installed. Currently the system will operate on manual mode. Calibrations for entire fleet are scheduled for first week of November

Findings: Equipment is ready for current and expected weather conditions. Full readiness schedule is acceptable.

Evidence – Records reviewed: None

Materials:

- 3. What supplies of de-icing, anti-icing chemicals, and winter abrasives are on hand at various locations?**

s.17; s.21

s.17; s.21

s.17; s.21

capabilities.

Salt – s.17; s.21 presently on hand in Service Area pits

Abrasive – s.17; s.21

s.17; s.21

- 4. Has winter sand been sampled and tested to ensure the produced material meets Ministry Specifications? Provide evidence.**

Sieve tests have been conducted. Results have been provided to the Ministry. Produced product meets specifications

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Findings: Sufficient quantities of brine, salt, and abrasives are on hand for the start of winter.

Brine can be produced and additional salt can be delivered as required.
Abrasives quantities are consistent with recent winter quantities

Evidence – Records reviewed:

Sieve test results from crushing activities provided. All material meets specifications, however some pits, s.17; s.21 for example, appear to be low on the larger material size.

HUMAN RESOURCES:

5. Have all employees, including new hires, received winter orientation training? If not when will this be done?

s.17; s.21 : completed October 23
npleted October 24
scheduled for October 31 after winter stakeholder meeting

Additional training planned after new hires are on shift.

Findings: Personnel have been trained as required and further training is planned as new hires come on shift.

Evidence – Records reviewed: None

COMMUNICATIONS:

6. Have pre-winter stakeholder meetings been held? If not, when are they scheduled?

Scheduled: October 29; s.17; s.21

7. Were any winter operational changes considered as a result of stakeholder concerns/complaints or changes to school bus routes?

Increased patrols are being considered for s.17; s.21 to address stakeholder concerns from last winter.

Findings: Appropriate stakeholder interaction is planned and has been addressed to date.

Evidence – Records reviewed: Agendas for winter stakeholder meetings

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Avalanche:

8. Has avalanche training been scheduled?

s.17; s.21 November 05 to 09 Training provided by Avaterra as was the case last year.

9. Have avalanche signs been erected?

Formal Request from the Ministry on Tuesday October 23

Signs on Highway 23N are being turned as of the day of the audit. TCH signs are scheduled for start of the following week.

10. Have avalanche gates been checked to ensure they are functional?

Gates have been inspected and are functional. Minor works is required (batteries in lights, etc) which will be completed first part of next week.

Findings: The Contractor appears to have taken appropriate steps to address season starting avalanche needs.

Evidence – Records reviewed: Radio conversations overheard by Ops Manager MoT confirming Contractor was in the process of inspecting gates. Visual confirmation of crew attending avalanche gate in the field.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Date accepted by MOT: U

Initials:

SECTION 4: NCR/OFI ISSUED

None

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

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Findings: IRL demonstrated they are meeting the requirements with their QMS for winter training.

Evidence – Records reviewed:

Records of training re: staff/sign in sheets.

COMMUNICATIONS:

External:

14. Have pre-winter stakeholder meetings been held?

- s.17; s.21 Zero attendance. Met with stakeholders personally.
- s.17; s.21 – met separately w/RCMP & School Bus contacts
- If stakeholders did not show up for meetings, IRL met with them personally
- Key Stakeholders, RCMP, School Bus, Ambulance, CRD, City of WL, CCRD (CAO)

**Elcy will email meeting list summary to MoTI

15. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

- Stakeholders have requested that weather alerts continue to be emailed (from Elcy)
- s.17; s.21 will be responsible for maintaining Heckman Pass, added extra operator to cover
- New pits: s.17; s.21
- Moved sand to s.17; s.21 . continuation of last year
- Shift in to winter campaign in full swing.

16. Has the contractor consulted with the school districts to get an updated list of school bus routes?

- New school bus routes on Mission Road and Tatla Lake.
- Discussed new school bus pullout maintenance on s.17; s.21 pullout maintenance.

Findings: IRL has met the requirements of their QMS for pre-winter stakeholder meetings.

Evidence – Records reviewed:

Minutes and sign in sheets for several meetings with dates and times.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Internal:

17. Have winter operational or school bus route changes been communicated to the operators?

- Yes, through winter orientation and updates provided to all operations staff.

18. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

- No changes this year

Findings: IRL has demonstrated they are meeting their QMS requirements.

Evidence – Records reviewed:

n/a

WHERE APPLICABLE:

19. Has avalanche training been delivered?

- One day training scheduled December 11, 2013

20. Have avalanche signs been erected?

- Yes

21. Have avalanche gates been checked to ensure they are functional?

- s.17; s.21
-

Findings: n/a

Evidence – Records reviewed: n/a

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Date accepted by MOT: [Click here to enter a date.](#)

Initials: _____

SECTION 4: NCR/OFI ISSUED

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

AUDIT REPORT – OFFICE COMPLIANCE / BONUS

WINTER PREPAREDNESS



Ministry of
Transportation
and Infrastructure

SECTION 1: AUDIT DETAILS

Audit Report No. 362

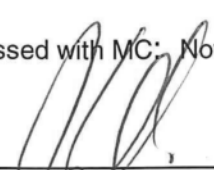
Service Area: SA15 - Thompson

Name of Contractor: Argo Thompson

Audit Date: November 6, 2012

Date Discussed with MC: November 7, 2012

Auditor: Jeff Saby/Donalda Ritchie


Auditor Signature

Attendee Register:

Name:

s.22

Position:

(Lead) Area Manager Kamloops East, MoTI
A/Area Manager Kamloops West, MoTI
General Manager, Argo
Quality Assurance Manager, Argo
Operations Manager, Argo
Quality Assurance Manager In Training, Argo

Topic of Audit:

Winter Preparedness 2012/2013

Overall Summary of Findings: As with previous years the Company has been found to be fully prepared for the winter season. Stockpiles of abrasives and salt are completed (observed in the field). Supply commitments are in place for de-icing chemical, and resupply of this product will be done on an ongoing basis by the Company. Equipment resources have been upgraded this year which will enhance reliability. Human resources are in place and well equipped to provide the contacted services required. The workforce is valued by the Company as evidenced by their^{s.17; s.21} intention's to provide continuous winter employment for their seasonal work force.^{s.17; s.21}

^{s.17; s.21} This provides a more skilled, more motivated and more ready workforce than the other model. The Ministry benefits from a better product on the road, and a much more timely response. As auditors we are satisfied that the Company has done all it can do to ensure that it meets and exceeds expectations.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

NONE

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

- 1. What percent of the Contractors equipment is ready for the winter season? And when will it be 100% ready?**

Findings:

The contractor is 100% prepared as of November 6, 2012 for the 2012/2013 winter season. The 'Winter Operations Plan' has been revised. A copy has been sent to the District.

Evidence – Records reviewed:

'Winter Operations Plan' 2012/2013
Discussion around readiness

- 2. Has any equipment been upgraded or replaced since last winter? If so what?**

Findings: Equipment has been upgraded where needed including purchases of:

- s.17; s.21 will be kept at s.17; s.21)
 - s.17; s.21
 - s.17; s.21
 - s.17; s.21 with increased power (485 hp) and improved emissions and wings s.17; s.21 planned for arrival week of November 12, and the remainder s.17; s.21 plan to arrive for December 2012 to replenish older fleet vehicles. Will aid in having more new parts available for repairs; improved fuel economy; airbag suspension; this includes s.17; s.21 underbodies s.17; s.21 extendable for side road use)
 - the s.17; s.21 fleet sits at s.17; s.21 now and a s.17; s.21 may yet be added this year
 - s.17; s.21 have been purchased and available for quick change out (1-2 hrs)
 - s.17; s.21 has been purchased (yellow for improved presence/visibility)
 - s.17; s.21 has been purchased for "rest area" maintenance.
- Improvements include vehicle exhaust heated water for pressurized cleaning during winter months. Storage racks/shelves for R/A maintenance have been incorporated into the unit.

Additional units and upgrades of equipment aids to spread out equipment across service area to improve upon response and provide backup where needed.

Evidence – Records reviewed:

Discussion with General Manager regarding equipment resourcing.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

3. Has the calibration of sand/salt spreaders, thermometer and temp. guns been completed?

Findings: The contractor has completed all calibrations. A list of calibrations is maintained by the Company. Beginning at the end of August, the contractor rotates every truck into to shop to get winter ready, with this, recalibrations of sanders and spreaders are completed. Surface and air thermometers are installed or checked temperature gauges are tracked and other winter equipment are also placed in the trucks.

Evidence – Records reviewed:

‘Calibrations List’ dated Oct 16 2012 – new calibrations stated for each unit as it is cycled through the shop for winter outfitting.

4. Does the Contractor have a back-up strategy in the event of equipment break down during a storm?

The Company has chosen to retain^{s.17; s.21} . With the addition of the^{s.17; s.21}
^{s.17; s.21} spare chain assemblies will be available for a quick swap out if required (1 hour).
Equipment can also be quickly moved from the^{s.17; s.21} facility to the outlying areas as well.

Findings: The Company has taken precautionary measures through the standardization of equipment to deal with the possibility of breakdowns. Spare parts will be readily available because of the standardization, and will provide excellent back-up in case of a break-down.

Evidence – Records reviewed: Discussion with General Manager around equipment resourcing.

5. How will the Contractor ensure a continual supply of salt this winter?

Long term supply commitments are in place for the supply of salt to the Company.

Findings: The contractor has an ongoing relationship and long term contract standing with K-Way for salt supply. The contractor maintains an^{s.17; s.21} and supply to last an above average winter season.^{s.17; s.21} throughout the winter season and are replenished as material is used.^{s.17; s.21} to ensure stockpiles are always in place. An arrangement with the supplier has been negotiated which essentially allows the Supplier to store their product in the Company’s salt storage facilities, with^{s.17; s.21}

This is good management by the Company and by the Supplier in that having done this early in the year ensures that at least one fewer Road Maintenance Contractor will be calling on the resources of the Supplier come fall. This ensures a more reliable supply for other Contractors and provides the Ministry comfort in knowing that there will not be as large a demand on the salt

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

supply at what could be a critical time if unusual weather causes early snow storms/freezing rain events.

Also with s.17; s.21, the product could possibly be shared with other Contractors in the event they are caught short in the fall.

Evidence – Records reviewed:

Discussion with the General Manager

6. Have all employees, including new hires received winter orientation training? Who delivers the training, and what does it cover?

Findings:

Operations Manager s.22 plans for and completes an all day winter awareness training for all staff.

Training topics covered and document updates include:

- The Winter Awareness Manual is updated annually and reviewed with all staff
 - This includes review of reciprocal agreements with City of Kamloops and any changes/additions/deletions
 - Each operator receives an updated copy of the manual each year and the Company keeps a copy in the assembly room as well.
- Article 6 changes/updates are discussed with all staff.
- Loading procedures are reviewed, including how calibrations are done on equipment.
- Review of maintenance specifications and maintenance services.
- Hands on demonstration is included - how to use various equipments and complete assemblies, pre-trip inspections, and review of attachments.
- Additional reading materials are distributed for further information.
- Review 'Operations Life Saver' - plowing of railway crossings' as submitted by CN
- Review of local hazards from previous years experience (ie. potential for damage to private property, sites of issue or challenge)

In addition to winter awareness meetings, local area toolbox meetings also capture local issues to address and local stakeholder concerns.

Evidence – Records reviewed:

Completion of individual staff training is tracked on 'Winter Awareness Oct 2/2012' with name and signature.

7. Has the Contractor consulted with the School District for an updated list of school bus routes? How was it done and when?

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Findings: Prior to winter stakeholder meetings October 4, 2012; School District 73 was contacted to attend 2012 stakeholder meeting and to provide update to new school bus routes. Issues or challenges from past year are discussed to find resolution.

Evidence – Records reviewed: 'Note to file' was documented November 1, 2012 and again November 5, 2012 to identify feedback from SD 73.

8. Article 6 changes have been issued since last winter, have those changes been communicated to the operators? and how?

Findings: Article 6 changes are discussed at winter awareness meetings annually in October and/or at toolbox meetings dependent on dates/implementation of changes. This includes discussions of maintenance requirements either new or changed as impacted by Article 6 adjustments.

Evidence – Records reviewed: Discussion with General Manager

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the Contractor.

The completion of Winter Orientation remains to be done for two operators. One of which was away, the other a new hire in the process of training. This will be done by the end of the week.

Date accepted by MOT: November 6, 2012

Initials: _____

SECTION 4: NCR/OFI ISSUED

NONE

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 1: AUDIT DETAILS

Audit Report #: 506

Service Area: SA14 - Nicola

Name of Contractor: VSA Hwy Maintenance

Audit Date: October 29, 2012

Date Discussed with MC: November 21, 2012

Auditors: Sam Pantaleo & Dennis Kurylowich


Auditor Signature

Attendee Register:

Name

s.22

Position

Area Manager TELP, MoTI
Operations Manager, MoTI
Quality Control Coordinator, VSA

Topic of Audit:

Winter Preparedness

Overall Summary of Findings: In the summary for each question. Further discussion was held with the Maintenance Contractor on November 21st, 2012.

Attachments (e.g. photos, monitoring records, public complaints, etc.): None.

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

NOTE: This is intended to be a comprehensive audit. All of the questions must be asked unless noted otherwise.

RESOURCES

Equipment:

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

1. What percent of the contractor's equipment is ready for the winter season? When will it be 100%?

Findings: Compliant. 90% of contractor's equipment is ready as of October 29th, 2012. s.17; s.21
s.17; s.21 are to be switched to winter readiness. Target date for 100% is November 15th, 2012.
-100% readiness was achieved on November 13th, 2012. The s.17; s.21 and
s.17; s.21 on November 13th, 2012 and are in service, as well as the s.17; s.21
The s.17; s.21 is completed and s.17; s.21 will be
ready by the end of the month.

Evidence – Records reviewed: s.17; s.21 - Equipment Readiness Plan.

2. What process was followed to ensure equipment readiness?

Findings: Compliant. s.17; s.21 has Pre-Winter Checklists that all winter equipment must undergo prior to mobilization.

Evidence – Records reviewed: s.17; s.21 119-R – Pre-Winter Roads Checklist
s.17; s.21 119-M – Pre-Winter Mechanical Checklists.

3. Has the calibration of all salt/sand spreaders, thermometers and temperature guns been completed?

Findings: Non-compliant. Evidence was provided that s.17; s.21
operating system were calibrated. However, other trucks in the fleet that do not contain the
operating system did not have clear evidence provided that the trucks were calibrated. OFI
issued. No evidence provided that thermometers and temperature guns have been calibrated.

Evidence – Records reviewed: VSA 229 - Salt/Sand Calibration Records – s.17; s.21
s.17; s.21

4. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

Findings: Compliant. s.22 In the
event of equipment breakdown during a winter storm, the contractor would move equipment
around with each vehicle being s.17; s.21 of the time. VSA needs to develop a plan to
ensure that sufficient equipment is available to meet their contractual obligations at all times.

Evidence – Records reviewed: s.17; s.21 equipment list specific to contract areas.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Materials:

5. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

Findings: Compliant. s.17; s.21
s.17; s.21

November 7th, 2012 showed s.17; s.21 of supplies.

Follow up check on

Evidence – Records reviewed: Verbatim evidence.

6. How will the contractor ensure a continual supply of salt this winter?

Findings: Compliant. The contractor has access to s.17; s.21 of salt from s.17; s.21 in s.17; s.21, B.C. Past history has shown there have been no issues. The contractor should have contracts in place with approved suppliers to provide the necessary de-icing materials at all times.

Evidence – Records reviewed: Verbatim evidence.

7. Are the chemicals being used by the contractor on the recognized products list (or approved by the province)?

Findings: Compliant. The chemicals being used by the contractor are on the recognized products list.

Evidence – Records reviewed: Certificate of Compliance – s.17; s.21 September 1st, 2012.

8. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Findings: Compliant. Sieve test records tested by s.17; s.21 revealed that maximum particle size for winter sand has not been exceeded.

Evidence – Records reviewed:

-Sieve test #55 – s.17; s.21 – June 18th, 2012. 100% passed at s.17; s.21 passed at s.17; s.21
-Sieve test #56 – s.17; s.21 – October 5th, 2012. 100% passed at s.17; s.21 passed at s.17; s.21
-Sieve test #57 – s.17; s.21 – October 23rd, 2012. 100% passed at s.17; s.21 at s.17; s.21
-Sieve test #58 – s.17; s.21 – October 23rd, 2012. 100% passed at s.17; s.21 passed at s.17; s.21
-Sieve test #59 – s.17; s.21 Pit – November 12th, 2012. 100% passed at s.17; s.21 passed at s.17; s.21
-Sieve test #60 – s.17; s.21 Pit – November 12th, 2012. 100% passed at s.17; s.21 passed at s.17; s.21

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

HUMAN RESOURCES:

9. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

Findings: Compliant. In need of^{s.17; s.21} additional hires, currently have^{s.17; s.21}

Evidence – Records reviewed: Shift schedules with appropriate contacts.

10. Have all employees, including new hires and sub-contractors, received winter orientation training?

Findings: Compliant.

-New hires winter training – November 5th – 9th, 2012.

s.17; has implemented a three level winter training program.

~^{s.21} -Level 1 - Employees and sub-contractors – Winter Awareness Meeting was held on October 10th, 2012.

-Level 2 – Superintendents and Road Foremen Winter Awareness Meeting – October 30th, 2012.

-Level 3 – Run by Superintendents and Road Foremen – Toolbox meetings done at individual yards.

-Subcontractors and their employees were included in the November 5th – 9th, 2012 training.

Evidence – Records reviewed:s.17; Winter Awareness Attendance List.

s.17; Winter Awareness Non-Attendance List.

s.21; 207 form – Training and Education New Hire Attendance List.

s.22

11. What does the training cover? Is the training comprehensive?

Findings: Compliant. Level 1 - Winter Awareness meeting covers: MoTI Maintenance Specifications, key performance indicators, equipment readiness, PM program, highway condition program, reporting requirements, Drive BC, weather, Transportation of Dangerous Goods, hands on stations provided by outside sources, etc.

Level 3 - Winter Toolbox meetings cover: Winter Operations Manual, hazard assessment, refer to best practices, reviewing MoTI Maintenance Specifications, safe work procedures and practices, etc.

Evidence – Records reviewed: Level 1 Winter Awareness meeting package materials.

-Level 3 Winter Toolbox meetings package materials.

-New Hire Training Agenda - November 5th – 9th, 2012 training session.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

COMMUNICATIONS:

External:

12. Have pre-winter stakeholder meetings been held?

Findings: Compliant. s.17; was held on October 12th. s.17; was held on October 11th.
s.17; s.21 was held on October 18th.

Evidence – Records reviewed: s.17; s.21 pre-winter stakeholder meeting minutes.

13. Were any winter operational changes considered as a result of 2011/2012 stakeholder concerns/complaints?

Findings: Compliant. s.17; has records of contact with stakeholders regarding winter concerns/complaints. This season they have s.17; s.21 that can s.17; s.21
s.17; s.21 s.17; has s.17; s.21 s.17; will continue to s.17; has
s.17; s.21 s.21
added three extra night shifts to the s.17; s.21 schedule.

Evidence – Records reviewed: s.17; Continuous Improvement Stakeholder Satisfaction report.
s.21;

14. Provide evidence of all Supervisors and Road Foremen are trained in Highway Conditions Reports as per Maintenance Specification 3-340.

Findings: Compliant. Highway Conditions Reporting was held on November 7th, 2012. Late meeting due to MoTI changes in reporting system. Meeting focused on message criteria – major event & incident response.

Evidence – Records reviewed: s.17; 207 – Training and Education Attendance List (Nov. 7th,
s.21; 2012).

15. Has the contractor consulted with the school districts to get an updated list of school bus routes?

Findings: Compliant. s.17; obtains a new list annually.
s.21;

Evidence – Records reviewed: s.17; – School Bus Routes Notification.
s.21;
-School bus schedule.
-Members of school districts were present at stakeholder meetings.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Internal:

16. If Article 6 changes have been issued since last winter, have those changes been communicated to the operators?

Findings: Non-compliant. Article 6 change from July 11th, 2012 at s.17; s.21 has not been communicated to the operators. OFI issued.

Evidence – Records reviewed: Verbatim.

WHERE APPLICABLE:

17. Has avalanche training been delivered?

Findings: Compliant. Avalanche training is scheduled for November 28th in s.17; s.21 December 5th in s.17; and December 12th in s.17; Past history has shown avalanche training has been a successfully conducted procedure.

Evidence – Records reviewed: Email from s.22 s.17;
s.21;
~ ~

18. Provide evidence of the required avalanche instructor qualification.

Findings: Compliant.

Evidence – Records reviewed: Canadian Avalanche Association – Resource and Transportation completion certificate. December 1st-5th, 2008.
-North Okanagan Regional District Fire Training Center – Instructional Techniques 1. October 2nd-9th, 1997 in Vernon, British Columbia.
-Email conversation with Doug Wilson, Senior Avalanche Officer on September 29th, 2010 verifies approval for training administration.

19. Have avalanche gates been checked to ensure they are functional?

Findings: Compliant. Two of VSA s.22 hours changing batteries and checking operation of all of the avalanche gates in the s.17; area.

Evidence – Records reviewed s.17; 012 – Daily Dispatch Report for October 31st, 2012.
s.21;
- ~

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor.

Date accepted by MOT: [Click here to enter a date.](#)

Initials: DP

SECTION 4: NCR/OFI ISSUED

OFI # - 14 121115 01

OFI # - 14 121115 02

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Distribution: Original to District; Copy to Contractor

SECTION 1: AUDIT DETAILS

Audit Report #: 2013-
001

Service Area: SA10 - Central Kootenay

Name of Contractor: YRB - Kootenay

Audit Date: December 4, 2012

Date Discussed with MC: December 4, 2012

Auditor: Cliff Razzo



Auditor Signature

Attendee Register:

Name

s.22

Position

Area Manager, MoTI
Quality Manager, YRB
General Manager, YRB

Topic of Audit:

Winter Preparedness for 2012 2013 Season

Overall Summary of Findings:

Overall, I have found s.17; s.21 to be proactive in their preparation for winter this year. No NCR or OFI's observed.

Attachments (e.g. photos, monitoring records, public complaints, etc.):

SECTION 2: QUESTIONS/ FINDINGS/ EVIDENCE – RECORDS REVIEWED

Assessing: Compliance – Maintenance Agreement Article 11.1 (k) & (l) and Bonus – Criterion #2 – Does the contractor perform the work in a proactive manner?

RESOURCES

Equipment:

1. **What percent of the contractor's equipment is ready for the winter season? When will it be 100%?**

s.17; s.21 are at 100%. s.17; s.21 are at 95% (at 100% for requirements of QMS) ass.17; has s.17; s.21
s.17; s.21 this spring s.17; s.21 at 100 % (including s.17; s.21

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s.17; s.21 next week status – operational). s.17; s.21 at 100%.
Reviewed Equipment Readiness Spreadsheet for SA Winter 2012/13.

2. Does the contractor have a back-up strategy in the event of equipment breakdown during a winter storm?

Spare trucks available at maintenance shop locations s.17; s.21 s.17; s.21
communicates daily between equipment manager and operation manager to update
equipment status. Also have access to hired equipment. In s.22 s.17; uses s.22
s.22 which has a s.17; s.21 available. Also s.17; has
updated their call in sheets for mechanics during winter storms. s.21

Evidence – Records reviewed: Equipment Readiness Spreadsheet for SA10 Winter 2012/13

Materials:

3. Are adequate supplies of de-icing and anti-icing chemicals on hand at various locations?

Yes it appears that adequate supplies of winter abrasive, salt and magnesium chloride are on hand. Reviewed winter abrasive stockpiles survey volumes for Oct 2012, conducted by s.22
s.22 Quality Manager. Also reviewed the winter salt balances for the 3rd December 2012. (Email
from s.22 dated 3rd December 2012). Also contractor has s.17; s.21
s.17; s.21

4. Has winter sand been sampled and tested to ensure maximum particle sizes are not exceeded? Provide evidence.

Findings: Yes all new stock piles of winter sand received sieve analysis testing this fall. All testing appears to fall in with the sieve standard for winter abrasive.

Evidence – Records reviewed: Reviewed sieve analysis sheets for s.17; s.21
s.17; s.21

HUMAN RESOURCES:

5. How will the contractor ensure sufficient human resources are available for all shifts in all foreman areas?

All full time regular staff has been placed on a winter shift schedule. Then s.17; brings auxiliary staff on for additional winter shift coverage. Also re-hired a full shift of operators for s.17; s.21
s.17; s.21 s.17; also recruited several new auxiliary employees. Ensure call in list for mechanical staff is up to date.

6. Have all employees, including new hires, received winter orientation training

Findings: Yes it appears that all employees, including new hires have received winter orientation training. In addition, s.17; conducted a 4 hr on the job training for auxiliary employees with guidance from regular employees to reviewed front plow installation, sander operation, chain installation, shoe adjustment, and operating produces for front end cat loader's.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

Evidence – Records reviewed: Reviewed attendance lists for all maintenance yards in Service Area 10 – Pre Winter Orientation. Reviewed QC Manager's Pre Winter Training Calendar. Reviewed email from s.22
Subject: Loose ends going into November and Auxiliaries needing training.

COMMUNICATIONS:

External:

7. Were any winter operational changes considered as a result of stakeholder concerns/complaints?

Findings: Yes, through conversations with various trucking groups and through employee orientations s.17; s.21 are being plowed to give more locations for drivers to park and remove their chains. These conversations took place with s.22 at the pre winter meetings this season. The procedure is to ensure the Highway is in good condition prior to making passes with the front plow.

Evidence – Records reviewed: Email from s.22 dated 3rd December 2012 (Ref: Office Audit)

Internal:

8. Have winter operational or school bus route changes been communicated to the operators?

Findings: Yes, SD8 provided email with route changes to s.17; s.21

Evidence – Records reviewed: Reviewed email from Michelle Lohrey, Transportation Coordinator (SD8) to s.22 dated 26 September 2012 Ref: School Bus Routes. Email then forwarded to s.17; s.21; Road Crew and Foreman.

WHERE APPLICABLE:

9. Has avalanche training been delivered?

Findings: Yes, according to s.17; s.21; records they conducted avalanche training on both s.17; s.21; s.22 on 2nd November 2012 and s.17; s.21; on the 17th October 2012.

Evidence – Records reviewed: Reviewed Avalanche Awareness Safety Training Sheet for both s.17; s.21; s.22 training session.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

SECTION 3: ACTIONS TO BE COMPLETED / RE-DONE

Describe all actions to be completed and/or re-done by the contractor. n/a

Date accepted by MOT: December 4, 2012

Initials: ____CR____

SECTION 4: NCR/OFI ISSUED

No NCR or OFI's observed.

Note: The audit is based on a limited sampling of the operations. Although conformance with the relevant contractual requirement has been examined, other observations or non-conformances may exist.

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