

A blurred high-speed train, likely a Shinkansen, is shown in motion at a station platform. The train is white with blue and grey accents. The platform has overhead lighting and signs. The background is a blurred view of the tracks and station infrastructure.

RMCO ANNUAL COMPLIANCE REPORT FOR 2022

REGULATORY MONITOR AND COMPLIANCE OFFICER

Transit Commission Meeting

April 13th, 2023

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Regulatory Monitor and Compliance Officer

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RMCO Background

- RMCO for City of Ottawa since March 2018:
 - ✓ Started regulatory compliance monitoring in September 2019 (after revenue service)
- Experience:
 - ✓ More than 40 years in the railway sector
 - ✓ Including passenger and commuter service
 - ✓ Held numerous operational and staff positions
 - ✓ Retired from CN Rail in 2017 as Vice President of Safety and Sustainability
- Education:
 - ✓ Masters in Engineering and MBA from McGill university
- Expertise:
 - ✓ Safety, Operations, Regulations, Auditing / Monitoring, Safety Management Systems, Safety Culture
- Member of IIA (Institute of Internal Auditors)

RMCO Scope / Mandate

- RMCO position created as part of Delegation Agreement
- RMCO Mandate / Scope:
 - Monitoring of regulatory compliance for safety and security;
 - Confederation line only;
 - Encompassing OC Transpo and Contractors;
 - Monitoring started after revenue service;
 - RMCO does **not** assess:
 - Safety or risks;
 - Adequacy of Regulations, equipment or technology;
 - Contractor competence.
- RMCO monitoring represents one of several layers of oversight in the City's Regulatory Regime

Regulatory Monitoring Approach

➤ Regulatory Monitoring Approach:

- Monitoring compliance relative to City LRT Regulations (i.e. 'City Manager Designation')
 - ✓ OC Tranpo has regulatory responsibilities, whereas contractors have contractual responsibilities
- Risk-based selection of areas to monitor
- Monitoring is structured and transparent:
 - ✓ Advanced notification;
 - ✓ Monitoring procedures;
 - ✓ Fact and evidence-based assessment of compliance

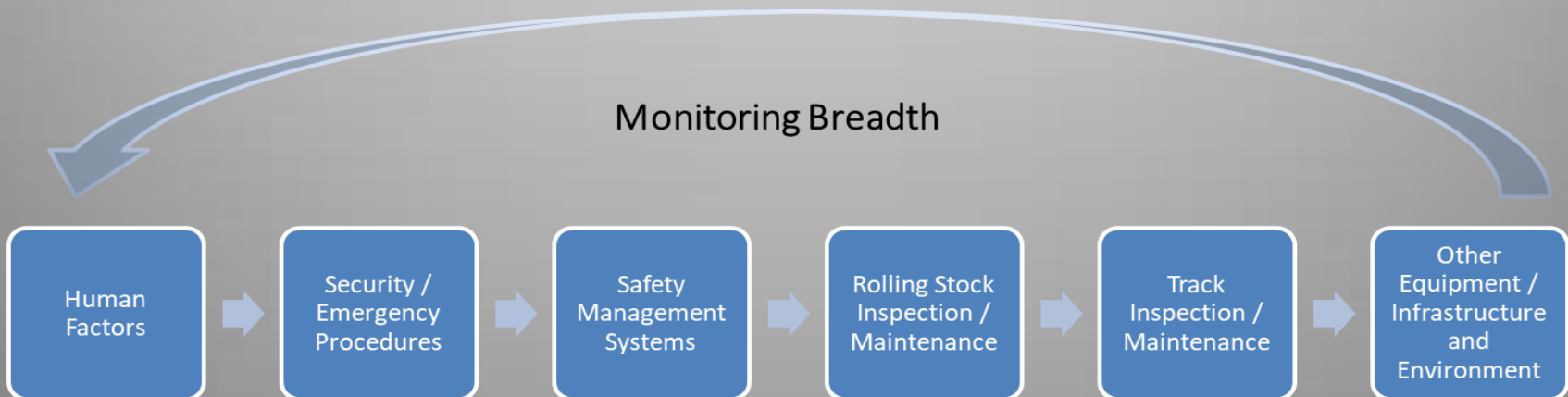


Areas Monitored in 2022

➤ Areas monitored in 2022:

AREAS MONITORED	Period
Inspections of Track, LRV and Catenary (revisited following 2020 monitoring)	Q2-Q3 2022
Security Management System	Q4 2022

➤ All 6 risk categories monitored since revenue service:



RMCO Monitoring Performed Since RSA - Recap

➤ Area monitored - fall 2019:

Training / qualification of employees involved in movement of LRV's / Trains



➤ Areas monitored in 2020:

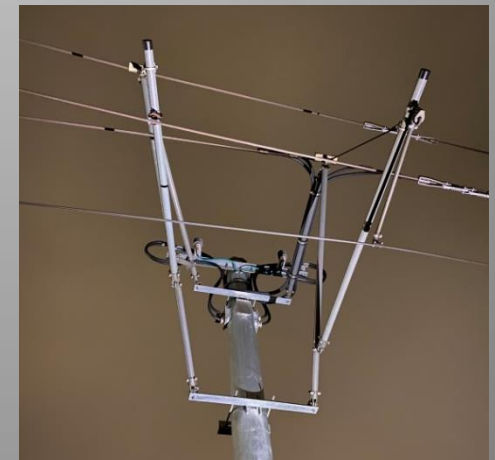
Track



Light Rail Vehicles



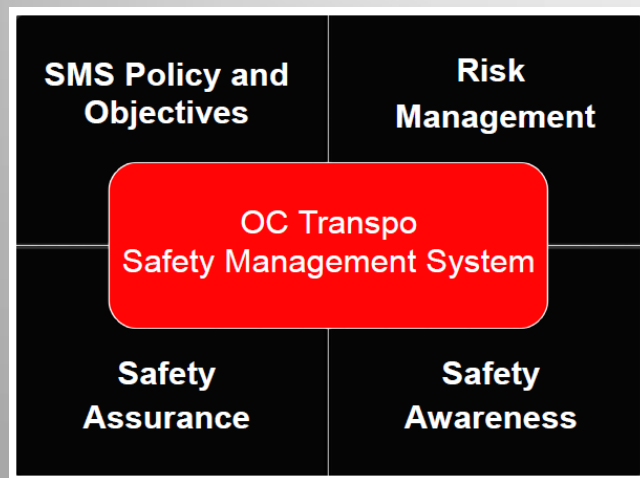
Catenary



Overview of RMCO Monitoring Performed Since RSA (cont'd)

➤ Areas monitored in 2021:

Safety Management System



Emergency Management Processes



- ✓ Safety Management System (SMS) refers to a systematic approach for managing safety through policies, objectives, initiatives, risk management and safety assurance
- ✓ Emergency Management Processes provide procedures and preparation for handling sudden or unexpected situations effectively

Overview of RMCO Monitoring Performed Since RSA (cont'd)

➤ Areas monitored in 2022:

A) Revisited inspections of track, LRV and catenary where gaps were identified in 2020:

Track



Light Rail Vehicles



Catenary



B) Security Management System:

Security Management System		OCT-S230-04-PGM Revision: V 1.5 Effective Date: 2022-10-18
Security Management System (SeMS) Program		
Document #:	OCT-S230-04-PGM	
Revision:	V 1.5	
Revision Date:	2022-10-24	

RMCO Activities - 2022

RMCO Activities - 2022

Regulatory Monitoring:

- 1) Monitored OC Transpo and RTM – 2 key areas:
 - Inspections of track, LRV and OCS (revisited)
 - Security Management System
- 2) Risk-based analysis
- 3) Monitoring procedures
- 4) Review / analysis of documents and records, interviews and field visits

Remedial Actions:

- Analysis, engagements with OCT and RTM, ongoing monitoring and support OCT to drive resolution

Reporting:

- 1) Quarterly City Manager meetings / updates
- 2) Annual Compliance Report

RMCO Monitoring Findings 2022 - Inspections of Track, LRV and Catenary

- **Regulatory Compliance Findings for OC Transpo – Summary** (refer to next slides for details):

12 Elements Monitored			
Adoption / Implementation	Direction	Oversight	Records
3 Elements Compliant	3 Elements Compliant	3 Elements Mostly Compliant	3 Elements Compliant

➤ **Comments:**

- 9 elements compliant and 3 mostly compliant (i.e. Oversight)
- Although OC Transpo Oversight is substantive, it needs to cover contractor employee training in accordance with Program requirements

➤ **Actions Taken to Address Findings:**

- OC Transpo enhanced 2023 Oversight Plan to monitor the training of contractor employees.

RMCO Monitoring Findings 2022 - Inspections of Track, LRV and Catenary (cont'd)

Monitoring Findings for OC Transpo:

ITEM	REFERENCE	ELEMENT	OC TRANSP - COMPLIANCE ASSESSMENT	NOTES
1A	PROGRAM ADOPTION / IMPLEMENTATION	TRACK	COMPLIANT	KEY DOCUMENTS SUBSTANTIATING MONITORING FINDING: 1) MAINTENANCE & REHABILITATION PLAN RTM-MC-PLN-042, SECTION 13.4.3 'TRACKWORK'. 2) TRACK SAFETY AND INSPECTION RULES RTM-ENG-RUL-132, SECTION 4 TRAINING. 3) ALSTOM ASSET MANAGEMENT PLAN - APPDX B4 'GUIDEWAY MAINTENANCE'. 4) MAINTENANCE & REHABILITATION PLAN RTM-MC-PLN-042, SECTION 8 'TRAINING AND QUALIFICATION OF PERSONNEL'.
1B		LRV	COMPLIANT	KEY DOCUMENTS SUBSTANTIATING MONITORING FINDING: 1) MAINTENANCE & REHABILITATION PLAN RTM-MC-PLN-042: SECTION 13.1 "VEHICLE MAINTENANCE"; SECTION 8 'TRAINING AND QUALIFICATION OF PERSONNEL'. 2) ANNUAL PREVENTATIVE MAINTENANCE PLAN RTM-MC-PLN-641, SECTION 6.1 "VEHICLE MAINTENANCE". 3) ALSTOM ASSET MANAGEMENT PLAN - APPDX B1 "MAINTENANCE FOR ROLLING STOCK LRV".
1C		CATENARY	COMPLIANT	KEY DOCUMENTS SUBSTANTIATING MONITORING FINDING: 1) MAINTENANCE & REHABILITATION PLAN RTM-MC-PLN-042: SECTION 13.4.3.2 "OCS MAINTENANCE"; SECTION 8 'TRAINING AND QUALIFICATION OF PERSONNEL'. 2) ALSTOM ASSET MANAGEMENT PLAN - APPDX B6 'MAINTENANCE FOR OCS - OVERHEAD CATENARY SYSTEM'.

COMPLIANCE SCALE:	C = COMPLIANT	Compliant: means that monitoring activities have identified compliant results in accordance with regulatory requirements and Program documents.
	MC = MOSTLY COMPLIANT	Mostly Compliant means that monitoring activities have identified predominantly compliant results, with some exceptions.
	PC = PARTIALLY COMPLIANT	Partially Compliant means that monitoring activities have identified mixed results, with some compliant areas, as well as non-compliant areas.
	NC = NOT COMPLIANT	Not Compliant means that monitoring activities have identified either fully non-compliant results or mostly non-compliant results.

RMCO Monitoring Findings 2022 - Inspections of Track, LRV and Catenary (cont'd)

Monitoring Findings for OC Transpo (cont'd):

2A	PROGRAM DIRECTION	TRACK	COMPLIANT	<p>KEY DOCUMENTS SUBSTANTIATING MONITORING FINDING:</p> <p>1) P.A. SCHED. 15-3, APPDX A, ATTACH 4, TRACK MAINTENANCE SERVICES.</p> <p>2) P.A. SCHED. 15-3, APPDX B 'ASSET PRESERVATION' - COVERS TRACK (P. 167), CATENARY (P.170), LRV (P.174).</p> <p>3) P.A. SCHED. 15-3, APPDX A, ARTICLES 1,2, MAINT. PERFORMANCE; SECTION 1.4 'MAINT. AND REHAB PLAN', SECTION 1.6 'COMPLIANCE' & SECTIONS 1.7, 1.8 'RECORDS'.</p> <p>4) P.A. SCHED. 15-3, APPDX A, ATTACHM 12, SECTION 1 "MAINTENANCE RECORDS AND REPORTING".</p> <p>5) P.A. SCHED. 15-3, APPDX A, MAINTENANCE PERFORMANCE, SECTION 1.3(G) 'TRAINING'.</p> <p>6) DIRECTION ALSO PROVIDED THROUGH OC TRANSP0 OVERSIGHT PROCESS AND ASSOCIATED CONTRACTUAL CORRESPONDENCE.</p>
2B		LRV	COMPLIANT	<p>KEY DOCUMENTS SUBSTANTIATING MONITORING FINDING:</p> <p>1) P.A. SCHED. 15-3, APPDX A, ATTACH 5, VEHICLE MAINTENANCE SERVICES.</p> <p>2) P.A. SCHED. 15-3, APPDX B 'ASSET PRESERVATION' - COVERS TRACK (P. 167), CATENARY (P.170), LRV (P.174)</p> <p>3) P.A. SCHED. 15-3, APPDX A, ARTICLES 1,2, MAINTENANCE PERF.; SECTION 1.4 'MAINT. AND REHAB PLAN', SECTION 1.6 'COMPLIANCE' AND SECTION 1.7, 1.8 'RECORDS'</p> <p>4) P.A. SCHED. 15-3, APPDX A, ATTACH 12, SECTION 1 "MAINTENANCE RECORDS AND REPORTING".</p> <p>5) P.A. SCHED. 15-3, APPDX A, MAINTENANCE PERFORMANCE, SECTION 1.3(G) 'TRAINING'.</p> <p>6) DIRECTION ALSO PROVIDED THROUGH OC TRANSP0 OVERSIGHT PROCESS AND ASSOCIATED CONTRACTUAL CORRESPONDENCE.</p>
2C		CATENARY	COMPLIANT	<p>KEY DOCUMENTS SUBSTANTIATING MONITORING FINDING:</p> <p>1) P.A. SCHED. 15-3, APPDX B 'ASSET PRESERVATION' - COVERS TRACK (P. 167), CATENARY (P.170), LRV (P.174).</p> <p>2) P.A. SCHED. 15-3, APPDX A, ARTICLES 1,2, MAINT. PERFORMANCE; SECTION 1.4 'MAINT. AND REHAB PLAN', SECTION 1.6 'COMPLIANCE' AND SECTION 1.7, 1.8 'RECORDS'.</p> <p>3) P.A. SCHED. 15-3, APPDX A, ATTACHM 12, SECTION 1 "MAINTENANCE RECORDS AND REPORTING".</p> <p>4) P.A. SCHED. 15-3, APPDX A, MAINTENANCE PERFORMANCE, SECTION 1.3(G) 'TRAINING'.</p> <p>5) DIRECTION ALSO PROVIDED THROUGH OC TRANSP0 OVERSIGHT PROCESS AND ASSOCIATED CONTRACTUAL CORRESPONDENCE.</p>

RMCO Monitoring Findings 2022 - Inspections of Track, LRV and Catenary (cont'd)

Monitoring Findings for OC Transpo (cont'd):

3A	PROGRAM OVERSIGHT	TRACK	MOSTLY COMPLIANT	<p>KEY DOCUMENTS SUBSTANTIATING MONITORING FINDING:</p> <p>1) OC TRANSPON LINE 1 OVERSIGHT PLAN 2022 (SFRG-OTRC-001-PLN)</p> <p>2) LINE 1 OVERSIGHT OVERSIGHT SCHEDULES</p> <p>.....</p> <p>COMMENTS: OC TRANSPON LINE 1 OVERSIGHT PLAN IS SUBSTANTIVE AND COVERS FIELD OVERSIGHT AS WELL AS REVIEW OF DOCUMENTS / RECORDS. DETAILED OVERSIGHT ACTIVITIES ARE SCHEDULED AND CARRIED OUT WITH SIGNIFICANT RESOURCES ALLOCATED. OVERSIGHT FINDINGS ARE ENTERED IN INFORMATION SYSTEM (CLEVERCAD) AND TRACKED IN SPREADSHEETS. HOWEVER, OCT OVERSIGHT PLAN SHOULD BE STRENGTHENED BY ENCOMPASSING TRAINING OF RTM / ALSTOM EMPLOYEES AS REQUIRED IN PROGRAM DOCUMENTS.</p>
3B		LRV	MOSTLY COMPLIANT	SAME AS 3A
3C		CATENARY	MOSTLY COMPLIANT	SAME AS 3A
4A	PROGRAM RECORDS	TRACK	COMPLIANT	<p>KEY DOCUMENTS / RECORDS SUBSTANTIATING MONITORING FINDING:</p> <p>1) LINE 1 OVERSIGHT SCHEDULES.</p> <p>2) OVERSIGHT MONTHLY REPORTS / SUMMARIES.</p> <p>3) RECORDS ENTERED AND MAINTAINED IN INFORMATION SYSTEM (CLEVERCAD).</p> <p>4) OVERSIGHT FINDINGS RECORDED AND TRACKED IN SPREADSHEETS.</p> <p>.....</p> <p>COMMENTS: OC TRANSPON HAS SYSTEM IN PLACE TO MAINTAIN OVERSIGHT RECORDS. THIS INCLUDES ENTERING OVERSIGHT ACTIVITIES AND RECORDING RELEVANT FINDINGS.</p>
4B		LRV	COMPLIANT	SAME AS 4A
4C		CATENARY	COMPLIANT	SAME AS 4A

RMCO Monitoring Findings 2022 - Inspections of Track, LRV and Catenary

- **Conformance* Findings for RTM - Summary** (refer to Tables in next slides):
 - **10 elements monitored** relative to applicable Programs:
 - ✓ **3 Conformant**
 - ✓ **1 Mostly Conformant**
 - ✓ **6 Partially Conformant**
 - **Key Conformance Gaps:**
 - ✓ Some inspection records missing for track and catenary for period monitored
 - ✓ Some LRV inspections performed beyond allowable time tolerance
 - ✓ Training delivery incomplete for all 3 employee types involved in inspections
 - ✓ Oversight plan formalized after period monitored
- **Actions Taken to Address Findings:**
 - OC Transpo requested formal remedial actions from RTM
 - Remedial actions under review and the subject of quarterly meetings as well as a formal tracking table (refer to next slides)

* The term 'Conformant' is used for RTG /RTM to reflect contractual responsibilities, rather than regulatory obligations

RMCO Monitoring Findings 2022 - Inspections of Track, LRV and Catenary (cont'd)

Monitoring Findings for RTM / Alstom:

ITEM	REFERENCE	ELEMENT		RTM - CONFORMANCE	NOTES
1A	PROGRAM ADOPTION	TRACK		CONFORMANT	THE FOLLOWING DOCUMENTS WERE PROVIDED BY RTM: 1) TRACK SAFETY AND INSPECTION RULES (ENG-RUL-132); 2) MAINTENANCE AND REHABILITATION PLAN (RTM-MC-PLN-042); 3) ASSET MANAGEMENT PLAN ENG-SV-OTT-PRO-001 (ALSTOM); 4) 5 ALSTOM WMS PROCEDURES SPECIFIC TO TRACK
1B		LRV		CONFORMANT	THE FOLLOWING DOCUMENTS WERE PROVIDED BY RTM: 1) MAINTENANCE AND REHABILITATION PLAN (RTM-MC-PLN-042); 2) ASSET MANAGEMENT PLAN ENG-SV-OTT-PRO-001 (ALSTOM); 3) 36 ALSTOM WMS PROCEDURES SPECIFIC TO LRV
1C		CATENARY		CONFORMANT	THE FOLLOWING DOCUMENTS WERE PROVIDED BY RTM: 1) MAINTENANCE AND REHABILITATION PLAN (RTM-MC-PLN-042); 2) ASSET MANAGEMENT PLAN ENG-SV-OTT-PRO-001 (ALSTOM) 3) 10 ALSTOM WMS PROCEDURES SPECIFIC TO CATENARY
2	PROGRAM DIRECTION	TRACK, LRV AND CATENARY		N/A	RTM PROVIDED CONFIRMATION THAT RELEVANT PROJECT AGREEMENT PARTS HAVE BEEN CONVEYED TO THEIR SUBCONTRACTORS. HOWEVER, AN OBJECTIVE ASSESSMENT OF THIS AREA WOULD REQUIRE THE REVIEW OF CONTRACTUAL MATERIAL WHICH IS LARGELY CONFIDENTIAL.

CONFORMANCE SCALE:

CONFORMANT	Conformant: means that monitoring activities have not identified any non-conformances relative to Program requirements by Contractor.
MOSTLY CONFORMANT	Mostly Conformant: means that monitoring activities have only identified a limited number of relatively minor non-conformances capable of being easily remedied in normal course.
PARTIALLY CONFORMANT	Partially Conformant: means that monitoring activities have identified more regular and/or more serious non-conformances that require timely attention.
NOT CONFORMANT	Not Conformant: means that monitoring activities have identified either full or serious non-conformance, or many non-conformances at the same time or on a repeated or unrectified basis.

RMCO Monitoring Findings 2022 - Inspections of Track, LRV and Catenary (cont'd)

Monitoring Findings for RTM / Alstom (cont'd):

3A	PROGRAM IMPLEMENTATION	TRACK		TRAINING - PARTIALLY CONFORMANT	1) TRAINING MATRIX AND TRAINING RECORDS PROVIDED; 2) HOWEVER, A REVIEW OF TRAINING RECORDS (RELATIVE TO TRAINING MATRIX) FOR A SAMPLE OF EMPLOYEES SHOWS THAT 7 OF 9 GUIDEWAY TECHNICIANS ARE MISSING SOME MANDATORY TRAINING COURSES
3B				EXECUTION OF TRACK INSPECTIONS - PARTIALLY CONFORMANT	1) EXTREME WEATHER INSPECTIONS CONFORMANT 2) RECORDS MISSING FOR SUBSTANTIAL NUMBER OF TRACK INSPECTIONS FOR PERIOD MONITORED: a) RECORDS MISSING FOR ABOUT 15% OF 3 DAY ML INSP.; b) RECORDS MISSING FOR 30% OF 1 MONTH TURNOUT INSP.; c) RECORDS MISSING FOR ABOUT 30% OF 1 DAY MAINLINE INSP.; d) RECORDS MISSING FOR ABOUT 30% OF 1 MONTH MAINLINE INSP.
3C		LRV		TRAINING - PARTIALLY CONFORMANT	1) TRAINING MATRIX AND TRAINING RECORDS PROVIDED; 2) HOWEVER, A REVIEW OF TRAINING RECORDS (RELATIVE TO TRAINING MATRIX) FOR A SAMPLE OF EMPLOYEES SHOWS THAT 7 OF 9 MAINTENANCE VEHICLE TECHS ARE MISSING SOME MANDATORY TRAINING
3D				EXECUTION OF LRV INSPECTIONS - MOSTLY CONFORMANT	RECORDS PROVIDED SHOW GENERALLY GOOD CONFORMANCE, HOWEVER ABOUT 15% OF 10K INSPECTIONS WERE PERFORMED BEYOND THE ALLOWABLE TOLERANCE.
3E		CATENARY		TRAINING - PARTIALLY CONFORMANT	1) TRAINING MATRIX AND TRAINING RECORDS PROVIDED; 2) HOWEVER, A REVIEW OF TRAINING RECORDS (RELATIVE TO TRAINING MATRIX) FOR A SAMPLE OF EMPLOYEES SHOWS THAT 2 OF 5 POWER TECHS ARE MISSING SOME MANDATORY TRAINING.
3F				EXECUTION OF CATENARY INSPECTIONS - PARTIALLY CONFORMANT	1) RECORDS MISSING FOR SUBSTANTIAL NUMBER OF CATENARY INSPECTIONS FOR PERIOD MONITORED: a) MISSING 3 OF 12 INSPECTION RECORDS FOR 6M INSPECTION (WMS001); b) MISSING 5 OF 12 RECORDS FOR 6M OCS TENSIONING (WMS002); c) MISSING 3 OF 12 INSP RECORDS FOR 1 YR PREV OCS (WMS005); d) INSPECTION RECORDS FOR WMS003, WMS004 AND WMS006 NOT PROVIDED; e) TWO 2M INSPECTIONS WMS007 AND WMS009 APPEAR TO HAVE BEEN DONE LATE (I.E. BEYOND TOLERANCE)

RMCO Monitoring Findings 2022 - Inspections of Track, LRV and Catenary (cont'd)

Monitoring Findings for RTM / Alstom (cont'd):

4	PROGRAM OVERSIGHT	TRACK, LRV AND CATENARY	OVERSIGHT - PARTIALLY CONFORMANT	1) RTM OVERSIGHT PLAN (RTM-OP-PLN-739) IS DATED APRIL 29, 2022 WHICH IS AFTER THE PERIOD MONITORED BY THE RMCO (Q4 2021 - Q1 2022) IN THIS SEGMENT. 2) OBJECTIVE EVIDENCE OBTAINED DURING THE MONITORING INDICATES THAT RTM OVERSIGHT WAS PERFORMED DURING THE PERIOD MONITORED, ALTHOUGH NO SPECIFIC PLAN / PROCESS WAS PROVIDED. FORMAL OVERSIGHT RECORDS WERE NOT PROVIDED BY RTM FOR THE PERIOD MONITORED.
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RMCO Monitoring Findings 2022 - Security Management System

- **Regulatory Compliance Findings for OC Transpo - Summary** (refer to next slides for details):

17 Elements Monitored				
Adoption	Implementation	Direction	Oversight	Records
1 Element Compliant	7 Elements Compliant	2 Elements Compliant	3 Elements Compliant	2 Elements Compliant
	1 Element Mostly Compliant		1 Element Mostly Compliant	

➤ **Comments:**

- 15 of 17 elements monitored are compliant:
 - Oversight is mostly compliant: OCT Oversight is substantive but needs to cover contractor SeMS Program Implementation
 - Threat and Vulnerability Analysis (TVA) is mostly compliant: required every 3 years

➤ **Actions Taken to Address Findings:**

- OC Transpo enhanced 2023 Oversight Plan to monitor contractor SeMS Program implementation and performed TVA in 2022.

RMCO Monitoring Findings 2022 - Security Management System (cont'd)

Monitoring Findings for OC Transpo:

ITEM	REFERENCE	ELEMENT	OC TRANSP	NOTES
1A	PROGRAM ADOPTION	SeMS MANUAL DEVELOPED / ADOPTED	COMPLIANT	OC TRANSP SeMS MANUAL PROVIDED - DATED 2022 AND INCLUDES APPENDIX B (SPECIFIC SECURITY PLAN).
2A	PROGRAM IMPLEMENTATION	COMMUNICATION OF PROGRAM AND ITS REQUIREMENTS	COMPLIANT	COMMUNICATION DOCUMENTS PROVIDED
2B		SECURITY MGMT POLICY AVAILABLE 2022	COMPLIANT	SeMS POLICY AVAILABLE IN 2022 OC TRANSP SeMS MANUAL
2C		OBJECTIVES / INITIATIVES AVAILABLE FOR 2022	COMPLIANT	OBJECTIVES AND INITIATIVES AVAILABLE IN: 1) SeMS PROGRAM MANUAL SECTION 2.4 (A1); 2) SeMS APPENDIX B SECTION 7 (A2)
2D		TVA	MOSTLY COMPLIANT	TVA's PERFORMED FOR LINE 1 IN 2015 AND 2022. REQUIREMENT EVERY 3 YEARS AS PER SeMS SECTIONS 1.4 AND 4.1.1.
2E		TRAINING FOR CITY OFFICERS (SPECIAL CONSTABLES, MANAGERS etc)	COMPLIANT	RECORDS PROVIDED TO SUBSTANTIATE TRAINING DELIVERY FOR OFFICERS
2F		TRAINING AWARENESS FOR ALL CITY EMPLOYEES (SeMS SECTION 8.3.1)	COMPLIANT	DOCUMENTS AND RECORDS PROVIDED TO SUBSTANTIATE TRAINING AWARENESS DELIVERY FOR EMPLOYEES
2G		DRILLS / EXERCISES (SeMS SECTION 9)	COMPLIANT	RECORDS PROVIDED TO SUBSTANTIATE DRILLS / EXERCISES PERFORMED AND PLANNED
2H		TABLE TOP EXERCISES ANNUALLY (SeMS SECTION 9.4.1) AND FULL SCALE EXERCISES EVERY 3 YEARS (SECTION 9.4.2)	COMPLIANT	1) EVIDENCE PROVIDED OF TABLE TOP EXERCISE DONE IN 2021 AND 2022. 2) EVIDENCE PROVIDED OF FULL SCALE EXERCISES PERFORMED AND PLANNED.

COMPLIANCE SCALE:

C = COMPLIANT

MC = MOSTLY COMPLIANT

PC = PARTIALLY COMPLIANT

NC = NOT COMPLIANT

Compliant: means that monitoring activities have identified compliant results in accordance with regulatory requirements and Program documents.

Mostly Compliant means that monitoring activities have identified predominantly compliant results, with some exceptions.

Partially Compliant means that monitoring activities have identified mixed results, with some compliant areas, as well as non-compliant areas.

Not Compliant means that monitoring activities have identified either fully non-compliant results or mostly non-compliant results.

RMCO Monitoring Findings 2022 - Security Management System (cont'd)

Monitoring Findings for OC Transpo (cont'd):

3A	PROGRAM DIRECTION	INTERNAL DIRECTION PROVIDED	COMPLIANT	EVIDENCE OF INTERNAL DIRECTION PROVIDED, INCLUDING TRAINING, COMMUNIQUE AND CORRESPONDENCE
3B		DIRECTION TO CONTRACTORS PROVIDED	COMPLIANT	EVIDENCE OF DIRECTION THROUGH SPECIFIC REQUIREMENTS IN PROJECT AGREEMENT, AS WELL AS OC TRANSPOND CORRESPONDENCE
4A	PROGRAM OVERSIGHT	MONITORING PLAN / PROCESS AVAILABLE	COMPLIANT	OC TRANSPOND PROVIDED SUBSTANTIVE OVERSIGHT PLAN WITH ANNEXES DETAILING MONITORING ACTIVITIES
4B		OVERSIGHT INTERNAL	COMPLIANT	EVIDENCE OF INTERNAL OVERSIGHT PROVIDED, INCLUDING STATISTICS, TRAINING, DRILLS AND SeMS COMMITTEE MEETINGS
4C		OVERSIGHT CONTRACTORS - CONTRACTUAL	COMPLIANT	EVIDENCE PROVIDED OF CONTRACTUAL OVERSIGHT THROUGH CORRESPONDENCES FROM OC TRANSPOND TO RTG
4D		OVERSIGHT CONTRACTORS - PROGRAM IMPLEMENTATION (e.g. IMPLEMENTATION - TRAINING, READINESS etc)	MOSTLY COMPLIANT	ALTHOUGH OC TRANSPOND HAS A SUBSTANTIVE OVERSIGHT PLAN WHICH ENCOMPASSES INTERNAL SeMS PROGRAM ACTIVITIES AND RTM CONTRACTUAL OVERSIGHT, THERE IS NO EVIDENCE OF PROGRAM OVERSIGHT REQUIRED TO MONITOR CONTRACTOR SeMS IMPLEMENTATION (E.G. TRAINING, BACKGROUND CHECKS, DRILLS, SeMS UPDATED ETC.). THIS IS CORROBORATED BY CONTRACTOR MONITORING WHICH IDENTIFIED MIXED CONFORMANCE FINDINGS.
5A	PROGRAM RECORDS	TRAINING RECORDS (INTERNAL OCT)	COMPLIANT	TRAINING RECORDS PROVIDED.
5B		OCT RECORDS RELATIVE TO OVERSIGHT	COMPLIANT	RECORDS PROVIDED RELATIVE TO STATISTICS, DRILLS, EVALUATIONS / DRILLS etc.

RMCO Monitoring Findings 2022 - Security Management System (cont'd)

- **Conformance* Findings for RTM** (refer to Tables in next slides):
 - **12 elements monitored** relative to applicable Program Requirements (refer to next slides):
 - ✓ **4 Conformant**
 - ✓ **5 Mostly Conformant**
 - ✓ **2 Partially Conformant**
 - ✓ **1 Not Conformant**
 - **Key Conformance Gaps:**
 - ✓ Employee security verifications not being performed
 - ✓ Security Plan annual reviews not being performed
 - ✓ Direction to subcontractors incomplete
 - ✓ Oversight incomplete
- **Actions Taken to Address Findings:**
 - OC Transpo requested formal remedial actions from RTM
 - Remedial actions under review and the subject of quarterly meetings as well as a formal tracking table (refer to next slides)

* The term 'Conformant' is used for RTG /RTM to reflect contractual responsibilities, rather than regulatory obligations

RMC0 Monitoring Findings 2022 - Security Management System (cont'd)

Monitoring Findings for RTM:

ITEM	REFERENCE	ELEMENT	RTM	NOTES
1A	PROGRAM ADOPTION	SeMS MANUAL DEVELOPED / ADOPTED	CONFORMANT	RTM HAS SECURITY MANAGEMENT PLAN WHICH APPEARS TO BE ALIGNED WITH P.A. REQUIREMENTS.

CONFORMANCE SCALE:

CONFORMANT

Conformant: means that monitoring activities have **not** identified any non-conformances relative to Program requirements by Contractor.

MOSTLY CONFORMANT

Mostly Conformant: means that monitoring activities have only identified a limited number of relatively minor non-conformances capable of being easily remedied in normal course.

PARTIALLY CONFORMANT

Partially Conformant: means that monitoring activities have identified more regular and/or more serious non-conformances that require timely attention.

NOT CONFORMANT

Not Conformant: means that monitoring activities have identified either full or serious non-conformance, or many non-conformances at the same time or on a repeated or unrectified basis.

RMCO Monitoring Findings 2022 - Security Management System (cont'd)

Monitoring Findings for RTM (cont'd):

2A	PROGRAM IMPLEMENTATION	ANNUAL REVIEWS OF SECURITY MANAGEMENT PLAN	PARTIALLY CONFORMANT	RTM SEMP REVIEWS (REQUIRED AS PER RTM SEMP 1.6) DO NOT APPEAR TO BE DONE ANNUALLY.
2B		SECURITY PROCEDURES	CONFORMANT	RTM PROVIDED SEVERAL SECURITY-RELATED PROCEDURES.
2C		SECURITY TRAINING	MOSTLY CONFORMANT	THE TRAINING MATERIAL PROVIDES SOME SECURITY CONTENT, BUT IS FOCUSED ON HEALTH AND SAFETY. IT DOES NOT REFER TO RTM'S SEMP AND DOES NOT COVER FULLY ITS P.A. OBLIGATIONS (P.A. SCHEDULE 15-3, ARTICLE 5.2 (B) (II) (B) AND RTM SEMS SECTION 4.14.2). ELEMENTS TO CONSIDER ADDING: I) NAME OF TRAINING TO STATE 'HEALTH, SAFETY AND SECURITY'; II) SEMP OVERVIEW; III) NEED FOR EMPLOYEES TO UNDERGO SECURITY CLEARANCE VERIFICATION ETC.
2D		SECURITY INITIATIVES	MOSTLY CONFORMANT	SECURITY INITIATIVES INCLUDE CCTV, ACCESS CONTROLS, TRAINING, CYBER SECURITY, KEY MANAGEMENT, DRILLS ETC. THE FENCING INTRUSION DETECTION SYSTEM (SEMP PART 4.7) IS EXPECTED TO BE FUNCTIONAL ONLY IN 2023.
2E		EMPLOYEE SECURITY CLEARANCE CHECKS	NOT CONFORMANT	EMPLOYEE SECURITY VERIFICATIONS ARE REQUIRED BY P.A. (SCHED. 15-3, ARTICLE 5.3) AND RTM SEMP (4.13). RTM APPEARS TO BE PERFORMING HR REFERENCE CHECKS, BUT NO EVIDENCE OF EMPLOYEE SECURITY CLEARANCE VERIFICATIONS BEING PERFORMED.
2F		SECURITY DRILLS / EXERCISES	MOSTLY CONFORMANT	RECORDS PROVIDED FOR FIRE DRILLS PERFORMED IN SEPT. 2021 AND DEC. 2022. SUCH DRILLS ARE REQUIRED WITHIN 12 MONTH INTERVALS (ONTARIO FIRE CODE (2.8.3.2.1(1), RTM'S SEMP 4.15 AND FIRE SAFETY PLAN RTM-SMS-PLN-241).

RMCO Monitoring Findings 2022 - Security Management System (cont'd)

Monitoring Findings for RTM (cont'd):

3A	PROGRAM DIRECTION	INTERNAL DIRECTION	CONFORMANT	INTERNAL PROCEDURES PROVIDED (E.G. YCC MANUAL, HELP DESK PLAN, KEY POLICY, TRAINING ETC.)
			PARTIALLY CONFORMANT	RTM HAS PROVIDED THE FOLLOWING: 1) EXCERPT 9.5 (A) ENTITLED "THE MAINTENANCE SUBCONTRACTOR SHALL" STATES: "COMPLY WITH THE SAFETY MANAGEMENT PLAN", "...GOOD INDUSTRY PRACTICE", "...MAINTAIN AND SECURE THE MSF", AND "...COMPLY WITH APPLICABLE LAW RELATING TO HEALTH AND SAFETY..." 2) EXCERPT 28.5 ENTITLED "STAFF COMPETENCY" STATES: EMPLOYEES SHALL "RECEIVE SUCH TRAINING AND SUPERVISION AS IS NECESSARY TO ENSURE PROPER PERFORMANCE OF THIS AGREEMENT AND COMPLIANCE WITH ALL HEALTH AND SAFETY RULES...", "...MSC PARTIES TO MONITOR AND CORRECT ... COMPETENCY PERSONS..." THE SUBCONTRACT EXCERPTS PROVIDED DO NOT APPEAR TO REFER TO RTM'S SEMP, ALTHOUGH IT IS APPLICABLE TO SUBCONTRACTORS (SEMP 1.2). FURTHER, THE ALSTOM OFFICERS INTERVIEWED WERE NOT AWARE OF RTM'S SEMP. ELEMENTS SUCH AS EMPLOYEE SECURITY CLEARANCE CHECKS DO NOT APPEAR TO BE DONE BY SUBCONTRACTORS.
3B		DIRECTION TO CONTRACTORS		

RMCO Monitoring Findings 2022 - Security Management System (cont'd)

Monitoring Findings for RTM (cont'd):

4A	PROGRAM OVERSIGHT	OVERSIGHT / MONITORING	MOSTLY CONFORMANT	RTM PROVIDED OVERSIGHT AND MONITORING PLAN WHICH IS FOCUSED ON "... MAINTENANCE AND REHABILITATION ACTIVITIES, INCLUDING RTM'S OWN, ALSTOM'S, AND OTHER SUBCONTRACTORS". THE INFORMATION PROVIDED BY RTM INDICATES THAT ONGOING OPERATIONAL MONITORING IS BEING DONE BY YCC'S FOR CERTAIN SECURITY INITIATIVES (I.E. CCTV, ACCESS TO FACILITY, EMERGENCY BUTTONS ETC.) AND THAT SECURITY EVENTS ARE DOCUMENTED IN THE 'SERVICE SUMMARY REPORTS'. HOWEVER THIS DOES NOT COVER 'PROGRAM OVERSIGHT' FOR SEMP (I.E. HOW DOES RTM MONITOR SEMP RESPONSIBILITIES SUCH AS EMPLOYEE SECURITY VERIFICATIONS, SUBCONTRACTOR COMPLIANCE, ANNUAL REVIEWS ETC.)?
5A	PROGRAM RECORDS	TRAINING RECORDS	CONFORMANT	TRAINING RECORDS PROVIDED FOR RTM AND ALSTOM.
5B		OVERSIGHT / SeMP RECORDS	MOSTLY CONFORMANT	RECORDS AVAILABLE OF SECURITY STATISTICS, DRILLS ETC. MISSING PROGRAM OVERSIGHT RECORDS (E.G. ANNUAL REVIEWS, EMPLOYEE SECURITY VERIFICATIONS, CONTRACTOR SECURITY COMPLIANCE ETC.)

Remedial Actions - Update

- OC Transpo requests remedial actions from RTG / RTM for all RMCO findings:
 - ✓ Expectations / timelines for submission and implementation of remedial actions specified in OC Transpo process map
- Resolution of Remedial Actions actively pursued:
 - ✓ OC Transpo engaging RTG / RTM and using contractual means for resolution;
 - ✓ OC Transpo / RMCO meet RTM quarterly to review status of remedial actions and expedite resolution
- Progress being made (refer to next slide*):
 - ✓ 26 of 41 findings closed through remedial actions resolution process;
 - ✓ Of the 15 remaining (open) findings:
 - 10 related to findings identified during 2022
 - 5 related to Emergency Response Plan (ERP) monitored Q4 2021 – ERP developed by RTM with implementation in progress March – July 2023
- Good collaboration by RTM, but resolution of some findings prolonged due to:
 - ✓ Development effort required (e.g. ERP)
 - ✓ Dependency on both RTM and Alstom

* See next slide for summary table of findings and remedial actions

Remedial Actions – Update (cont'd)

Summary of RMC0 findings and remedial actions since revenue service inception:

RMC0 MONITORING FINDINGS - STATUS APRIL 4, 2023				
REGULATORY AREA / PROGRAM	PERIOD MONITORED	NUMBER OF FINDINGS	NUMBER OF FINDINGS CLOSED*	NUMBER OF FINDINGS OPEN
RULES TRAINING - OPERATING EMPLOYEES	Q4 - 2019	1	1	0
TRACK INSPECTIONS	Q1 / Q2 - 2020	8	8	0
LRV INSPECTIONS	Q3 / Q4 - 2020	5	5	0
CATENARY INSPECTIONS	Q3 / Q4 - 2020	5	5	0
SMS	Q2 / Q3 - 2021	6	6	0
ERP	Q4 - 2021	6	1	5
INSPECTIONS LRV, TRACK, CATENARY	Q2 / Q3 - 2022	4	0	4
SECURITY MANAGEMENT SYSTEM	Q4 - 2022	6	0	6
	TOTAL	41	26	15

* Further progress being made in 2023

Summary

- RMCO monitoring activities completed in 2022:
 - Inspection of Track, LRV and Catenary (revisited following 2020 monitoring);
 - Security Management System
- RMCO current / upcoming activities:
 - Following April 13 Transit Commission meeting, Annual Compliance Report to be reviewed with City Council April 26, 2023;
 - Regulatory compliance monitoring for 2023 to start Q2 following risk-based selection of areas to monitor;
 - Ongoing focus on remedial actions with OC Transpo / RTM / RMCO