Annexure B: Product Testing Evaluation

Supply, installation, and removal of intelligent smart container locks within the Transnet Operating Division (OD) of the Rail Infrastructure Manager (TRIM) nationally and internationally for a period of three (03) years.			
Product Testing Criteria (90% Threshold)	**100%**		
1. Operations efficiency, ease of use, and time taken to lock and secure the locks proposed for 6m and 12m Cargo containers.	**5%**		**Test criteria for Pass or Fail**
The locks are fitted and secured in less than or equal to 4 minutes on 6m or 12m Cargo container.	1	5%	The bidding company is required to demonstrate the efficiency and usability of the proposed Cargo container lock. **Key evaluation criteria:** Time to lock and secure the Cargo container: The time taken to lock the Cargo container (6m or 12m cargo container) will be measured. **The required time is for the proposed Cargo container lock to be fitted and secured in less than or equal to 4 minutes.** This evaluation criteria emphasizes the importance of efficiency and speed in the locking process, likely to ensure minimal downtime and maximize productivity.
No lock presented or the lock proposed took more than 4 minutes to be fitted and secured on the Cargo container.	0	0%	
2. Operations efficiency, ease of use, and time taken to lock and secure the locks proposed for Sugar Wagons.	**5%**		**Test criteria for Pass or Fail**
The locks are fitted and secured in less than or equal to 8 minutes on a Sugar wagon.	1	5%	The bidding company is required to demonstrate the efficiency and usability of the proposed Sugar wagon locks. **Key evaluation criteria:** Time to lock and secure the Sugar wagon: The time taken to lock all doors of the Sugar wagon will be measured. **The required time is for the proposed Sugar wagon locks to be fitted and secured in less than or equal to 8 minutes.** This evaluation criteria emphasizes the importance of efficiency and speed in the locking process, likely to ensure minimal downtime and maximize productivity.
No submissions or the locks proposed took more than 8 minutes to be fitted and secured on the Sugar wagon.	0	0%	
3. Operations efficiency, ease of use, and time taken to lock and secure the locks proposed for Beer wagon.	**5%**		**Test criteria for Pass or Fail**
The locks are fitted and secured in less than or equal to 4 minutes as illustrated below Beer wagon.	1	5%	The bidding company is required to demonstrate the efficiency and usability of the proposed Beer wagon locks. **Key evaluation criteria:** Time to lock and secure the Beer wagons: The time taken to lock the Beer wagon will be measured. **The required time is for the proposed locks to be fitted and secured in less than or equal to 4 minutes.**
No lock presented or the lock proposed took more than 4 minutes to be fitted and secured on the Beer wagons.	0	0%	

			This evaluation criteria emphasizes the importance of efficiency and speed in the locking process, likely to ensure minimal downtime and maximize productivity.
4. Test resilience of the proposed Cargo container locks to lock picking by a professional locksmith.	**5%**		**Test criteria for Pass or Fail**
The Cargo container lock withstand the locksmith's attempt and remain secure in more than 5.	1	5%	The test aims to assess the proposed Cargo container lock's resilience to lock picking by a professional locksmith. **Key evaluation criteria:** Transnet will acquire the services of a professional locksmith to unlock and open the lock secured to the cargo container with and without a key. **The attempt will last for 5 minutes.** The Bid Evaluation Committee (BEC) will: (a) Measure the time taken by the locksmith. (b) Observe whether the locks remain secure and intact after a 5-minutes period.
No lock presented or the locksmith unlocked the cargo container lock in less than or equal to 5 minutes.	0	0%	
5. Test resilience of the proposed Sugar locks to lock picking by a professional locksmith.	**5%**		**Test criteria for Pass or Fail**
The Sugar wagon locks withstand the locksmith's attempt and remain secure in more than 5 minutes.	1	5%	The test aims to assess the proposed Sugar wagon lock's resilience to lock picking by a professional locksmith. **Key evaluation criteria:** Transnet will acquire the services of a professional locksmith to unlock and open the lock secured to the sugar wagon with and without a key. **The attempt will last for 5 minutes.** The Bid Evaluation Committee (BEC) will: (a) Measure the time taken by the locksmith. (b) Observe whether the locks remain secure and intact after a 5-minutes period.
No lock presented or the locksmith unlocked the Sugar wagon locks in less than or equal to 5 minutes.	0	0%	
6. Test resilience of the proposed Beer wagon lock to lock picking by a professional locksmith.	**5%**		**Test criteria for Pass or Fail**
The Beer wagon lock proposed withstand the locksmith's attempt and remain secure in more than 5 minutes.	1	5%	The test aims to assess the proposed Beer wagon lock's resilience to lock picking by a professional locksmith. **Key evaluation criteria:** Transnet will acquire the services of a professional locksmith to unlock and open the Beer wagon lock secured to the beer wagon with and without a key. **The attempt will last for 5 minutes.** The Bid Evaluation Committee (BEC) will (a) Measure the time taken by the locksmith.
No lock presented or the locksmith unlocked the Beer wagon lock in less than or equal to 5 minutes.	0	0%	

			(b) Observe whether the locks remain secure and intact after a 5-minutes period.
7. Test resilience of the proposed Cargo container locks to withstand forced removal attempts using heavy-duty equipment such as a 2-ton chain block and tackle.	**5%**		**Test criteria for Pass or Fail**
The locks proposed are designed such that it is impossible to fit and hook the chain block and tackle on it or where it is possible to hook it, the lock remained intact and secured for a period more than 3 minutes.	1	5%	With the locks fitted and secured on the Cargo container lock, a professional Boiler Maker, will attempt to hook a 2-ton chain block and tackle to remove the lock. **Key evaluation criteria:** The timing will start after the chain block and tackle is setup and **testing will proceed for a period of 3 minutes. During testing:** The Bid Evaluation Committee (BEC) will: (a) Observe if it is possible to fit the hook the chain block and tackle. (b) Observe that the locks are removed or remain intact and secure for a period of less than or equal to 3 minutes.
Not lock presented or the chain block and tackle removed the Cargo container lock in less than or equal to 3 minutes.	0	0%	
8. Test resilience of the proposed Sugar wagon locks to withstand forced removal attempts using heavy-duty equipment such as a 2-ton chain block and tackle.	**5%**		**Test criteria for Pass or Fail**
The locks proposed are designed such that it is impossible to fit and hook the chain block and tackle on it or where it is possible to hook it, the lock remained intact and secured for a period more than 3 minutes.	1	5%	With the locks fitted and secured on the Sugar wagon lock, a professional Boiler Maker, will attempt to hook a 2-ton chain block and tackle to remove the lock. **Key evaluation criteria:** The timing will start after the chain block and tackle is setup and **testing will proceed for a period of 3 minutes. During testing:** The Bid Evaluation Committee (BEC) will: (a) Observe if it is possible to fit the hook the chain block and tackle. (b) Observe that the locks are removed or remain intact and secure for a period of less than or equal to 3 minutes.
Not locks presented or the chain block and tackle removed the Sugar wagon lock in less than or equal to 3 minutes.	0	0%	
9. Test resilience of the proposed Beer wagon locks to withstand forced removal attempts using heavy-duty equipment such as a 2-ton chain block and tackle.	**5%**		**Test criteria for Pass or Fail**
The locks proposed are designed such that it is impossible to fit and hook the chain block and tackle on it or where it is possible to hook it, the lock remained intact and secured for a period more than 3 minutes.	1	5%	With the locks fitted and secured on the Beer wagon lock, a professional Boiler Maker, will attempt to hook a 2-ton chain block and tackle to remove the lock. **Key evaluation criteria:** The timing will start after the chain

Not locks presented or the chain block and tackle removed the Beer wagon lock in less than or equal to 3 minutes.	0	0%	block and tackle is setup and **testing will proceed for a period of 3 minutes. During testing:** The Bid Evaluation Committee (BEC) will: (a) Observe if it is possible to fit the hook the chain block and tackle. (b) Observe that the locks are removed or remain intact and secure for a period of less than or equal to 3 minutes.
10. Test resilience of the proposed Cargo container lock to withstand forced removal attempts using a crowbar and 8-ton hammer.	**5%**		**Test criteria for Pass or Fail**
The Cargo container lock withstand the forced removal by a crowbar and an 8-ton hammer. The lock remains intact and secured in more than 3 minutes.	1	5%	With the locks fitted and secured on the Cargo container, a professional Boiler Maker, will attempt to remove the locks with a crowbar and an 8-ton hammer. **Key evaluation criteria:** The testing will proceed for a period of 3 minutes. **During testing:** The Bid Evaluation Committee (BEC) will: (a) Observe if it is possible to remove the locks with a crowbar and an 8-ton hammer. (b) Observe that the locks are removed or remain intact and secure for a period of less than or equal to 3 minutes.
No lock presented or the crowbar and 8-ton hammer removed the Cargo container lock in less than or equal to 3 minutes.	0	0%	
11. Test resilience of the proposed Sugar wagon locks to withstand forced removal attempts using a crowbar and 8-ton hammer.	**5%**		**Test criteria for Pass or Fail**
The Sugar wagon lock withstand the forced removal by a crowbar and an 8-ton hammer. The lock remains intact and secured in more 3 minutes.	1	5%	With the locks fitted and secured on the Sugar wagon, a professional Boiler Maker, will attempt to remove the locks with a crowbar and an 8-ton hammer. **Key evaluation criteria:** The testing will proceed for a period of 3 **During testing:** The Bid Evaluation Committee (BEC) will: (a) Observe if it is possible to remove the locks with a crowbar and an 8-ton hammer. (b) Observe that the locks are removed or remain intact and secure for a period of less than or equal to 3 minutes.
No lock presented or the crowbar and 8-ton hammer removed the Sugar wagon lock in less than or equal to 3 minutes.	0	0%	
12. Test resilience of the proposed Beer wagon locks to withstand forced removal attempts using a crowbar and 8-ton hammer.	**5%**		**Test criteria for Pass or Fail**
The Beer wagon lock withstand the forced removal by a crowbar and an 8-ton hammer. The lock remains intact and secured in more 3 minutes.	1	5%	With the locks fitted and secured on the Beer wagon, a professional Boiler Maker, will attempt to remove the locks with a crowbar and an 8-ton hammer. **Key evaluation criteria:** The testing

No lock presented or the crowbar and 8-ton hammer removed the Beer wagon lock in less than or equal to 3 minutes.	0	0%	will proceed for a period of 3 minutes. **During testing:** The Bid Evaluation Committee (BEC) will: (a) Observe if it is possible to remove the locks with a crowbar and an 8-ton hammer. (b) Observe that the locks are removed or remain intact and secure for a period of less than or equal to 3 minutes.
13. The test aims to assess the proposed Cargo container lock's resilience to being cut through using a powerful angle grinder.	**5%**		**Test criteria for Pass or Fail**
The Cargo container lock withstand an angle grinder with a high tensile blade. The locks remain intact and secured in more than 30 seconds.	1	5%	The test aims to assess the proposed lock's resilience to being cut through using a powerful angle grinder. **Key evaluation criteria:** With the locks fitted and secured, Transnet will acquire services of professional boiler makers to cut through the Cargo container using a 750 - 1000-Watt angle grinder. The test will measure the time it takes for the angle grinder to cut through the locks. **Scoring criteria:** The BEC will observe whether the angle grinder can cut through the Cargo container lock proposed. **The test evaluates the proposed lock's ability to resist cutting attacks, providing insight into their durability and security.**
No lock presented or the Cargo container lock failed to withstand a cut through from the angle grinder for less than 30 seconds.	0	0%	
14. The test aims to assess the proposed Sugar wagon lock's resilience to being cut through using a powerful angle grinder.	**5%**		**Test criteria for Pass or Fail**
The Sugar wagon locks withstand an angle grinder with a high tensile blade. The locks remain intact and secured in more than 30 seconds.	1	5%	The test aims to assess the proposed lock's resilience to being cut through using a powerful angle grinder. **Key evaluation criteria:** With the locks fitted and secured, Transnet will acquire services of professional boiler makers to cut through the Sugar wagon locks using a 750 - 1000-Watt angle grinder. The test will measure the time it takes for the angle grinder to cut through the locks. **Scoring criteria:** The BEC will observe whether the angle grinder can cut through the Sugar wagon locks. **The test evaluates the proposed lock's ability to resist cutting attacks, providing insight into their durability and security.**
No lock presented or the Sugar wagon locks failed to withstand a cut through from the angle grinder for less than 30 seconds.	0	0%	
15. The test aims to assess the proposed Beer wagon lock's resilience to being cut through using a powerful angle grinder.	**5%**		**Test criteria for Pass or Fail**

The Beer wagon lock withstand an angle grinder with a high tensile blade. The locks remain intact and secured in more than 30 seconds.	1	5%	The test aims to assess the proposed lock's resilience to being cut through using a powerful angle grinder. **Key evaluation criteria:** With the locks fitted and secured, Transnet will acquire services of professional boiler makers to cut through the Beer wagon lock using a 750 - 1000-Watt angle grinder. The test will measure the time it takes for the angle grinder to cut through the locks. **Scoring criteria:** The BEC will observe whether the angle grinder can cut through the Beer wagon lock. **The test evaluates the proposed lock's ability to resist cutting attacks, providing insight into their durability and security.**
No lock presented or the Beer wagon lock failed to withstand a cut through from the angle grinder for less than 30 seconds.	0	0%	
16. The test aims to assess the proposed Cargo container lock's resilience to being cut through using a powerful diamond core drill.	**5%**		**Test criteria for Pass or Fail**
The Cargo container locks withstand a drill. The locks remain intact and secured in more than 30 seconds.	1	5%	The test aims to assess the proposed lock's resilience to being cut through using a diamond core drill. **Key evaluation criteria:** With the locks fitted and secured, Transnet will acquire services of professional boiler makers to drill through the Cargo container lock using a 750 - 1000-Watt diamond core drill. The test will measure the time it takes for the drill to drill through the lock. **Scoring criteria:** The BEC will observe whether the drill can drill through the lock. **The test evaluates the proposed lock's ability to resist drilling attacks, providing insight into their durability and security.**
No lock presented or the Cargo container lock failed to withstand a drill through from the diamond core drill for less than 30 seconds.	0	0%	
17. The test aims to assess the proposed Sugar wagon lock's resilience to being cut through using a powerful diamond core drill.	**5%**		**Test criteria for Pass or Fail**
The Sugar wagon locks withstand a drill. The locks remain intact and secured in more than 30 seconds.	1	5%	The test aims to assess the proposed lock's resilience to being cut through using a diamond core drill. **Key evaluation criteria:** With the locks fitted and secured, Transnet will acquire services of professional boiler makers to drill through the Sugar wagon lock using a 750 - 1000-Watt diamond core drill. The test will measure the time it takes for the drill to drill through the lock. **Scoring criteria:** The BEC will observe whether the drill can drill through the lock. **The test evaluates the proposed lock's ability to resist drilling attacks, providing insight into their durability and security.**
No lock presented or the Sugar wagon locks failed to withstand a drill through from the diamond core drill for less than 30 seconds.	0	0%	

18. The test aims to assess the proposed Beer wagon lock's resilience to being cut through using a powerful diamond core drill.	**5%**		**Test criteria for Pass or Fail**
The Beer wagon lock withstand a drill. The lock remains intact and secured in more than 30 seconds.	1	5%	The test aims to assess the proposed lock's resilience to being cut through using a diamond core drill. **Key evaluation criteria:** With the locks fitted and secured, Transnet will acquire services of professional boiler makers to drill through the Beer wagon lock using a 750 - 1000-Watt diamond core drill. The test will measure the time it takes for the drill to drill through the lock. **Scoring criteria:** The BEC will observe whether the drill can drill through the lock. **The test evaluates the proposed lock's ability to resist drilling attacks, providing insight into their durability and security.**
No lock presented or the Beer wagon lock failed to withstand a drill through from the diamond core drill for less than 30 seconds.	0	0%	
19. The lock tamper-proof test assesses the lock's ability to detect and alert against various forms of tampering or attack.	**10%**		**Test criteria for Pass or Fail**
The Intelligent driven smart lock report complies with all 5 alarm reporting features required.	1	10%	The lock tamper-proof test assesses the lock's ability to detect and alert against various forms of tampering or attack. **Key evaluation criteria:** The alarm report must provide real-time alerts (Within 3-5 seconds) of tampering attempts below: 1. Drilling. 2. Chain block and tackle. 3. Crowbar and hammer. 4. Angle grinder. 5. The report includes GPS locations data of the attempts, allowing precise tracking and response. **Scoring criteria:** The BEC will observe the reports on either a laptop or mobile device and score according to the set criteria. **This feature enhances the overall security and monitoring capabilities of the container locks.**
No report presented or not all 5 alarm reporting features are available on the report.	0	0%	

100%