

Request For Information
Elevator Car Urine Detection System

SSE#: 432443

Reply Date: 05/02/2023

New York City Transit is seeking an expression of interest to identify and obtain information from firms experienced in designing, furnishing, and installing an elevator car urine detection system (ECUDS) to enhance passenger comfort and the visual appearance of elevator cars within subway stations.

The Request for Information (“RFI”) is not a solicitation of actual bids, which may be solicited by means of a Request for Proposal (“RFP”) at a later date. The RFI has two purposes.

1. To identify proven manufacturers of ECUDS that have been successfully implemented in large transit systems throughout the world.
2. To elicit information from the ECUDS industry on topics that will improve NYCT’s ability to specify and provide a proven system and improve the ability of qualified suppliers to do business with NYCT in a commercially viable manner.

NYCT is particularly interested in systems that have the following attributes at minimum:

1. Ease of Integration – the ability for the ECUDS to integrate seamlessly into various types of sizes of elevator cars with a minimal amount of pre-installation modifications, regardless of elevator type, car construction and controller design.
2. Minimal on-site assembly – ECUDS that can be assembled offsite and delivered in a modular form to minimize the length and frequency of elevator outages associated with installation.
3. Aesthetic design – Visible portions of the ECUDS should be as compact as possible and should complement the existing elevator car design. The ECUDS enclosure must not obstruct or interfere with the operation of other car components, including the in-car lighting and fan, CCTV camera(s), car operating panel, entrance(s) and doors, position indicator(s), emergency escape hatch, and any maintenance access panels.
4. System sensitivity – the ECUDS must be capable of detecting odors using a minimal amount of sensing devices.
5. Smart systems – the ECUDS must be capable of differentiating between urine and other fragrances and smells, including but not limited to various perfumes/colognes, food aromas, garbage, smoke, and other foul odors.
6. System accuracy – the ECUDS capable of positively identifying urine with a minimal number of false positive/false negative notifications.
7. Notification options – ECUDS capable of transmitting alerts independently or via an existing remote monitoring system. Alerts may be the form of visual or aural notifications, as well as electronic (ex: SMS, e-mail).
8. Component reliability – all components must be designed or rated for continual operation in an extreme operating environment. All components should be protected from and resistant to acid, extreme temperatures, high humidity, seismic activity, salt, sleet, dust, and water.
9. Maintenance and repair – all components should be designed for minimal preventative maintenance and rapid exchange in the event of a component failure.
10. Security – all ECUDS components should have tamper/vandal resistant hardware and enclosures to deter vandalism and tampering by unauthorized persons.

For the avoidance of doubt, NYCT will only consider ECUDS that have been proven in large scale applications, including but not limited to airports, institutional settings, municipalities, and other transit systems.

Qualification

NYCT intends to qualify ECUDS that will enhance passenger comfort and the visual appearance of elevator cars within subway stations. Qualification may entail a supplier's installation, operation, and maintenance of a system at one or more subway stations, followed by a period of demonstration and observation.

Background Information

The NYCT subway system is located within the boroughs of Brooklyn, Manhattan, Queens, and the Bronx in New York City. There are 472 stations, of which approximately 135 are served by elevators or a similar means of accessibility. There are approximately 335 elevators systemwide maintained by NYCT; the equipment consists of a mixture of hydraulic, roped hydraulic, traction, and inclined elevators produced by various manufacturers.

Occasionally the elevator cars are used by riders as a restroom, resulting in an unsanitary condition requiring cleaning as soon as possible. Urine damages unprotected portions of the car structure and floor, causing rust and premature component failure; passengers encountering a soiled car are typically overwhelmed by strong urine odors, forcing some to forego using the elevator. It is believed the ECUDS will enhance NYCT's ability to quickly detect unsanitary conditions and expedite resources to clean the affected car.

Please review the above requirements and submit your reply to the address below no later than 05/02/2023. The reply should include product brochures, a statement on company size, experience, and capabilities, and a list of properties (with contact information) currently using the system being offered.

**New York City Transit
2 Broadway, 19th Floor, Room D19.10
New York, NY 10004
Attn: John Papagianopoulos
Tel: (646) 252-6128**

**If you prefer to electronically submit a response, please send it to
John.Papagianopoulos@NYCT.com**