

ELECTION COMMISSION OF INDIA

NIRVACHAN SADAN, ASHOKA ROAD, NEW DELHI-110001

No.51/8/16/9/2017-EMS

Dated: 11th March, 2017

To,

Shri Satish Chandra Misra,
National General Secretary,
4, Gurudwara Rakabganj Road,
New Delhi-110001.

Subject: Concerns raised about manipulation of EVMs by experts of technology and software field hired by BJP -reg.

Sir,

I am directed to refer to your letter dated 11.03.2017, on the subject matter, and to state that the Commission has duly considered your said letter. It is stated that the Commission has been successfully using EVMs since 2000 in every election in the Country and have full confidence on the absolute credibility of ECI-EVMs. Credibility of EVMs has been successfully recognized by the Courts on several occasions.

ECI-EVMs were endorsed by a technical expert subcommittee appointed by the Government of India at the initiative of the Goswami Committee on Electoral Reforms in 1990. This Committee was headed by Prof. S. Sampath, then Chairman, Recruitment and Assessment Centre (RAC), Defence Research and Development Organization, with Prof. P.V. Indiresan, then with IIT, Delhi and Dr. C. Rao Kasarbada, the then Director, Electronics Research and Development Center, Trivandrum as members. Subsequently, the Commission has been consulting a group of technical experts comprising (Late) Prof. P.V. Indiresan (member of the earlier committee), Prof. D.T. Shahani and Prof. A.K. Agarwala of IIT Delhi, on all EVM related technical issues. In November, 2010, the Commission has expanded its Technical Expert Committee by including two more experts, namely, Prof D.K. Sharma from Department of Electrical Engineering, IIT of Mumbai and Prof. Rajat Moona from Department of Computer Science and Engineering, IIT of Kanpur (now Director General, C-DAC).

Since their introduction in the year 1982 on pilot basis, EVMs were used in all bye-elections/General Elections to Parliamentary & Legislative Assemblies held since 2000 and in country wide General Elections to the Lok Sabha in 2004 and 2009. The use of EVMs was preceded by long ranging political, technical and administrative consultations. Independent committees and Technical Experts have endorsed the machine time and again. Various preventive and precautionary steps have been put in place by the Commission for the operation, maintenance and storage of the EVMs. The Election Commission has firm conviction and complete satisfaction that EVMs cannot be tampered with. The Election Commission of India believes that the use of

EVMs has helped to prevent several electoral malpractices and resulted in the more efficient conduct of elections.

In the past, various Courts have upheld the use of EVMs. The Madras High Court, after elaborate consideration of the issue in a batch of petitions in 2001, rejected allegations that the EVMs could be tampered with. In the year 2002, the Kerala High Court upheld the use of these machines. The Karnataka High Court, in its ruling in 2004, hailed the EVM as 'a national pride'. The Mumbai High Court in a decision in 2005 came to similar conclusion after examining some experts.

Technical Security of EVMs used by ECI

- (a) The machine is both mechanically and electronically protected to prevent any tampering/manipulation. The programme (software) used in these machines is burnt into a One Time Programmable/Masked chip (Hardware) so that it cannot be altered or tampered with. Further these machines are not networked either by wire or by wireless to any other machine or system. Therefore, there is no possibility of its data corruption.
- (b) The software of EVMs is developed in-house by BEL a Defence Ministry PSU and ECIL an Atomic Energy Ministry's PSU independently.
- (c) The vote can be recorded by an elector from the ballot unit only after the Presiding Officer enables the ballot on the Control Unit, the machine does not receive any signal from outside at any time.
- (d) During production in the factory, functional testing is done by production group as per the laid down quality plan and performance test procedures.
- (e) Samples of EVMs from production batches are regularly checked for functionality by Quality Assurance Group, which is an independent unit within the manufacturing firms.
- (f) Certain additional features were introduced in 2006 in ECI-EVMs such as dynamic coding between Ballot Unit and Control Unit, installation of real time clock, installation of full display system and date and time stamping of every key pressing in EVM.

Complete Procedural Security

The Commission has put in place an elaborate administrative system of measures and procedural checks-and-balances aimed at prevention of any possible misuse or procedural lapses. These safeguards are implemented transparently with the involvement of political parties, candidates and their representatives at every stage to build their confidence on efficacy and reliability of EVMs, as they are actually representatives of electors. These safeguards are: -

- (a) Before every election a first level checking (FLC) is done for every EVM to be used in the election by the engineers of the manufacturers **in the presence of political parties'**

representatives. Any malfunctioning EVM is kept separately and is not used in the election.

- (b) Manufacturers certify at the time of FLC that all components in the EVM are original. After this, the plastic cabinet of Control Unit of the EVM is sealed using a "Pink Paper Seal", **which is signed by representatives of political parties.** After this, the plastic cabinet of control unit of the EVMs cannot be opened and there is no access to any component of inside of EVMs.
- (c) At the time of FLC, **at least 1000 votes are cast by the representatives on 5% of EVMs randomly selected by them.** A printout of the results of mock poll as well as a sequential print out of every vote polled during the mock poll at the time of First Level Checking of EVMs are taken out for at least 5% of EVMs and shown to the representatives of political parties. Representatives of political parties are allowed to pick machines randomly for this purpose. In rest of the machines, number of votes polled during the mock poll are to the satisfaction of the representatives of political parties. **Representatives of political parties are allowed to do mock poll themselves.**
- (d) Subsequently, EVMs are further **randomized twice once for allocation of machines to assembly constituencies and second to polling stations in the presence of candidates or their representatives before they are distributed for use in individual polling stations.** Such lists of EVM containing serial number of EVM allocated to particular polling station are provided to the political parties/candidates.
- (e) **Candidates and their representatives are allowed to conduct mock polls on EVMs at the time of candidate setting and also before the actual poll on the poll day to satisfy themselves about the satisfactory functioning of EVMs being used.**
- (f) Once the candidate setting is done the Ballot Unit of the EVM is also sealed with thread/Pink Paper seals so that nobody has access to the inside of the Ballot Unit too. These Pink seals also bear signatures of representatives of political parties/candidate.
- (g) A printout of the results of mock poll as well as a sequential print out of every vote polled during the mock poll at the time of Preparation of EVMs and candidate setting are also taken out for at least 5% of EVMs and **shown to the representatives of political parties. Representatives of political parties are allowed to pick machines randomly for this purpose.**
- (h) On the poll day, a mock poll by casting at least 50 votes is conducted at every polling stations **in the presence of the representatives of the candidates/polling agents with their signature and a certificate to that effect is obtained from every Presiding Officer.**

- (i) After the mock poll is over, another thread seal and green paper seals are put on the EVM to block access to all buttons on the EVM, except those, which are used for the conduct of poll. **These paper seals and thread seals are allowed to be signed by the polling agents.** After the poll is over, the Presiding officer presses the "Close" button on the EVM in the presence of polling agents. Thereafter, no votes can be polled in the EVM.
- (j) After this, the entire EVM is sealed. **Candidates and their agents are allowed to put their signatures on the seals,** which they can check for the intactness of the seal before counting.
- (k) In addition to this, the strong rooms where EVMs are stored, pending for counting are also sealed and watched round the clock. **The candidates and their representatives are allowed to put their own seals on the strong rooms. They also allowed to keep a watch round the clock on the strong room.**
- (l) The representatives of candidates of all political parties are given opportunity to participate in all the above occasion of FLC, Preparation of EVMs before poll, mock poll, etc.

Judicial Pronouncements

- (a) The issue of possible tampering of EVM has been raised before various High Courts in the past [EP No. 29 of 1999 before the Karnataka High Court, W.P. No. 3346 of 2001 and other connected petitions before the Madras High Court, and EP No. 1 of 2004 before the Bombay High Court (Nagpur Bench)]. All the three High Courts after going into all aspects of the technological soundness and the administrative measures involved in the use of EVMs at elections in India, have held that the EVMs in India are credible, reliable and totally tamperproof. The Hon'ble Karnataka High Court held that "This invention is undoubtedly a great achievement in the electronic and computer technology and a national pride". Both the Karnataka High Court and the Madras High Court observed that use of EVMs in election has several advantages over the system of ballot paper/ballot box election. The Hon'ble Madras High Court also categorically ruled out any question of tampering of the EVMs. The following observations made by the Madras High Court may be taken note of:
 "There is also no question of introducing any virus or bugs for the reason that the EVMs cannot be compared to personal computers. The programming in computers, as suggested, has no bearing with the EVMs. The computer would have inherent limitations having connections through Internet and by their very design, they may allow the alteration of the programme but the EVMs are independent units and the programme in EVM is entirely a different system."
- (b) In one of the cases as directed by the Hon'ble High Court of Kerala in Election Petition No.4/2001, the process of detecting votes cast by impersonators was carried out before the Hon'ble Court in the case of General Election from 125-Evavipuram Assembly Constituency

in Kerala in 2001. The High Court in its order dated 6.2.2002 had recorded its appreciation on the efficiency of the mechanism. The judgment of the Kerala High Court in the said Election Petition was upheld by the Hon'ble Supreme Court in Civil Appeal (AIR 2003 SC 2271).

The full Commission made repeated visit to Uttar Pradesh and Uttarakhand and met the representatives of all parties, including your party. No one raised any objection with regard to functioning of EVMs at these meetings. The Commission has thus not received any complaints during entire process of elections in Uttar Pradesh and Uttarakhand with regard to your allegation of grave manipulation of EVMs.

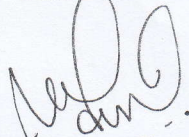
As explained above, the Commission has put in place elaborate technical and administrative safeguards to ensure error-free functioning of EVMs in elections.

The Commission is thus fully satisfied with the tamper proof functioning of the ECI-EVMs. Although the Commission has offered opportunities more than once to those alleging the tamperability of EVM, no one has been able to demonstrate to the Commission that the EVM used in the country's election process, can be manipulated or tampered with.

The prescribed administrative process has been fully complied with in Uttar Pradesh and Uttarakhand elections in the presence of the representatives of political parties/candidates.

The Commission has, therefore, not found any merit in your allegations and the prayers made in your letter under reply are not legally tenable.

Yours faithfully


(Madhusudan Gupta)
Under Secretary