M.C.O.C. SPECIAL CASE NO. 21 OF 2006

DATE:14TH OCTOBER 2011 **EXT. NO.1659**

DEPOSITION OF WITNESS NO.154 FOR THE PROSECUTION

I do hereby on solemn affirmation state that:

My Name : Sandesh Sadashiv Revle

Age : 40 years

Occupation : Service (API, ATS)

Res. Address : R. No. 96, Bldg. No. 339, Grant Road (E), Mumbai-7

Examination-in-chief by SPP Raja Thakare for the State

1. I am attached to the ATS since 14/09/11. I was attached to the Turbhe Police Station, Navi Mumbai before that and then to Crime Branch, Mumbai. I was attached to the Bomb Detection and Disposal Squad (BDDS) from 1998 to 2007 as PSI. My education qualifications are B. Sc., L.L.B., ICWA Inter. My subjects at B.Sc were Biology, Chemistry and Physics. I have taken training in bomb disposal twice in the NSG training center, Manesar, Gurgaon, Haryana in 1999 and in 2003. I have taken training of anti sabotage checking at SRP Group-I, Pune in 1998 and disposal of military ammunition at Military Center, Khadki, Pune in 2006. I have an experience of 8-9 years in

this field. During this period I have disposed of many IEDs, i.e., Improvised Explosives Devices and military ammunition, but I cannot tell the exact number. I have given evidence about my work in the court many times.

2. The routine work of our squad is to check the residences of the Chief Minister and the Dy. Chief Minister for any sabotage. We have to do the same work whenever there are visits of VVIPs in Mumbai. We have to attend bomb threat calls and if IEDs are found there then we defuse and dispose them off. If the police stations or any other branches seize any explosives or accessories of bomb, then we destroy them on the orders of the courts. If we get any bomb threat call, we take with us the sniffer dogs, who can identify the explosives. We take explosive detectors, bomb suit, bomb basket, bomb blanket, Non-linear Junction Detector (NLJD) equipment, portable x-ray machine and other search and disposal equipments. The sniffer dogs are handled by constables who are trained handlers. The dogs are also trained to identify explosives. There are two handlers for each dog and such dog obeys the orders of those handlers only. We know that explosive is detected by the sniffer dog when the handler takes

the dog to the suspicious article and orders it to sniff it by giving the order 'smell find' and after sniffing it if the dog finds an explosive in that article, it moves back, sits down and starts barking. Some dogs are also given special training only to sit if they find an explosive in any article. This is to prevent any devise that can be activated by sound from being activated. In the BDDS training we are trained to know how the dogs are trained, how they respond to the commands of the handlers and what are their limitations.

3. When we go to attend a bomb call, we 100% assume that there is a bomb in the article lying there, e.g., a bag unless and until we are 100% sure that there is no bomb in that article after we have checked it. Therefore, the first step that we take is to ask people to evacuate the premises from around the suspicious article. Then we wear bomb suits and only the officers go to the article with the explosive detector, NLJD, portable x-ray machine and with the help of these articles we verify whether there is any explosive or any IED in that article. At the same time we get the article sniffed from the dog squad, because a dog is most reliable than any modern equipment. If we do not find any suspicious thing in the article, then we open it with the help of the

equipment that is with us. If there is any IED in the suspicious article, then depending on the place where it is, e.g., if it is an open ground, then we destroy it at the spot by giving dummy charge. This is the first option. The second option is that the explosion can be tolerated but not desirable, e.g., if the IED is found in a government building or a court building, then we try to make the IED inactive and we take it to a deserted place and destroy it. The third option is when the explosion cannot be tolerated, e.g., if it is found near a nuclear plant or near an oil depot or like vital installation, then the officer makes hand entry, i.e., he wears the bomb suit and tries to defuse the IED at the spot. This action is taken because some IEDs have anti-handling mechanism and they can go off even if they are lifted from their place.

4. An IED is what is commonly known as a bomb. One normally thinks of a bomb that is factory manufactured, which means that it has a particular shape, size, fixed amount of explosive in it, particular type of explosive and the triggering mechanism is also fixed. For example, in a hand grenade one can easily say that it is a hand grenade on seeing its shape. A hand grenade does not blast unless the safety pin is taken out and the lever is released. As against this,

an IED can be in any form of article of daily household use. It does not have a particular triggering mechanism and one does not know the nature of explosives and the devices used for preparing it. If it has an anti-handling mechanism, even if it is lifted, the blast takes place. Such type of bombs can be activated by pressure on the articles or release of pressures from the articles like activation of switch when it is pressed if one sits on the chair or activation of switch when it is released if one opens the door of a refrigerator and the light inside is switched on. Timer devices can be fitted to such explosives because of which a particular IED can be placed at a particular place which is deserted and it can be timed to go off when it is habitated or crowded.

5. The basic components of an IED are : the explosive substance can be a low or a high explosive. Then there should be a detonator inside, because a detonating wave is required for exploding the explosive substance. Then there should be a power source, because electric current is required to activate the detonator. Then a switch is required to activate this entire IED, which is known as IED mechanism. The switch is necessary for the safety of the bomber when he is preparing it and as he wants to activate it at the desired

timing. The main intention of a bomber is to cause maximum casualties. Therefore, he puts ball bearings and nails in the bomb itself. These are called splinters, which are thrown out forcibly like projectiles and cause maximum casualties.

6. There are basically high explosives and low explosives. RDX, PETN, TNT are some examples of high explosives. Gun powder and propellants are some examples of low explosives. Low explosives are of low intensity and are sensitive to friction and impact. Low explosives are basically used as propellants. Therefore, they are basically used in bullets. As against this, high explosives are less sensitive to friction and impact and they require detonating wave for exploding it. Low explosives give propellant effect and high explosives give shattering effect. Therefore, high explosives are mostly used in IEDs. When the high explosive explodes, it releases gasses about 10 to 12 thousand times its original volume or mass. The temperature that is generated at the site of the blast is about 3000-4000^{o}C. The pressure of air that is generated because of the blast is 40 lakhs pounds per square inch. High explosives are used in IEDs because of such characteristics. Household articles can

become explosives. For example, if sugar is added to potassium chlorate KCL_2 or sodium chlorate $NACL_2$ or potassium permanganate $KMNO_4$ and sulfuric acid H_2SO_4, then it becomes an explosive. Hydrogen Peroxide is used as bleaching agent, e.g., for colouring the hair. Acetone is used as varnish or nail paint remover. Sulfuric acid is an acid. From these three chemicals TATP (Tri Acetone Tri Peroxide) liquid explosive can be created. The most important characteristic of this explosive is that it is highly sensitive to friction and impact. Because of this it does not require detonator. Therefore, as there is no detonator in it, it cannot be detected by metal detector. Such type of explosives are used in the middle east by terrorists.

7. When an IED explodes 4-5 effects follow it. First is blast pressure, which is thrust on all four directions and it takes with it the gasses pressing the surrounding air and they form wave fronts. Such wave fronts are thrown to all directions at the speed of 10 to 12 thousands kms per hour. Pressure is created on the lungs of the people who are near the blast and on their ears because of which there are more casualties. The wave front cuts every article that comes in its way. It subsides after some distance. This is the positive

phase. In the second phase, the gasses that have been thrust outside in all directions rush to the spot of the explosion to fill up the vacuum that is created there. This is the negative phase. In this negative phase when the gasses rush towards the spot, they do so in a high speed and damage the articles that had remained to be damaged. Because of the high temperature that is created by the blast, nearby articles, even steel, melt or bend and humans sustain burn injuries. If there is combustible material in the surroundings of the blast, like wood, furniture, clothes, rexine, plastic, etc., it catches fire. There is fragmentation effect as the splinters and the outer casings of the bomb are propelled forcibly and they cause casualties. Such splinters travel at the speed of about 6000 kms per hour. The transitional effect is that the nearby articles are also broken in pieces and are thrown to all directions like missiles and cause damage.

8. The most important in an IED is the triggering mechanism. On the basis of the triggering mechanism the standard bombs and IEDs can be differentiated. One is anti-handling mechanism. This means that it does not activate till the time any person lifts it, put pressures on it, pushes it, moves it or handles it. Second is the delay

mechanism. The bomber wants to blast the bomb at a desired time. Therefore, he sets the timing mechanism. The types of timing mechanisms are watches, expanding seeds that increase in size when soaked in water as time passes thereby completing the circuit. Then sulfuric or any acid is put in plastic container. The acid starts corroding the plastic container, because of which it leaks and the two poles of the circuits come together as acid decreases in volume. Time pencil can also be used as delay mechanism. It was used in the 1993 bomb blasts. There is cupric acid in the time pencil. There is a colour mark on the pencil that indicates the delay. The cupric acid is in a small glass bulb in the pencil and a hammer is at the end of the pencil pulled back by a spring. When the time is set the acid reaches the spring and starts corroding it. The time setting depends on the strength of the acid and the thickness of the spring. As soon as the corrosion of the spring breaks the spring, the hammer is activated and it hits the percussion cap, which ignites the safety fuse, which in turn detonates the detonator. There are switches known as ambient condition. These become activated because of barometric pressure, smoke, fire, temperature and other environmental conditions. If there

are light sensors, they are placed in the dark in the night and when they come in contact with daylight the explosion takes place. The fourth type of mechanism is remotely controlled switches. There is a transmitter with the planter and there is a receiver in the bomb. It is activated by radio signals, infrared rays and mobile frequencies.

9. A crater is created when there is a blast, depending on the amount of the explosive and the nature of the site. There is a blackening of all surroundings after the blast. Entry marks of splinters in bodies of victims are seen in particular directions. One can see marks of the splinters in particular directions on the surrounding surfaces. The blackening takes place at a very high pressure and temperature. Therefore, water does not affect it and it does not wash away. The blackening is more intense than a household utensil that blackens when any eatable therein is burnt.

10. We collect swabs of the blackening on the surfaces of articles when we visit any bomb site. We have the explosive testing kit with us. There are reagents in the kit. The drops of the reagents are put on the swabs of blackening and the colour that is obtained is matched with the chart that is in the kit, which indicates the type of

explosive. Another swab of same blackening is sent to the FSL for confirmation. We try to lift metal pieces from the crater that is created at the spot with the help of powerful magnets that are with us. We search for remains of the bomb, e.g., an electric circuit, battery cells and pieces of container in which the bomb was kept. We can reconstruct the bomb from such articles. We can determine the amount of the explosive by using the formula D^3=16xW from the size of the crater. 'D' denotes diameter of the crater and 'W' denotes weight of the explosive. We can ascertain the seat of the bomb from the directions of the projectiles.

11. We were called by the ATS at Kalachowki on 09/10/06 for inspecting some suspicious articles that were seized from the accused by name Asif Bashir Khan @ Junaid in the bomb blasts that took place in the railways on 11/07/06. We reached the office at about 7.15 or 7.30 p.m. PSI Tembulkar, PSI Patil, dog Max, handler Gawade and other staff were with me. I met PI Tajne there. His staff was also present there. They gave me a sealed khaki envelope on which there was a label containing the signatures of panchas and asked me to examine the material that was in the envelope and to

say whether it was an explosive. I took the envelope to the open space behind the Kalachowki ATS office. We opened the envelope. There were off white coloured granules in a plastic bag in that envelope. I asked the handler to direct the dog Max to sniff the granules. The dog sniffed them and gave a positive message by barking that it was explosive substance. Explosive substance basically contains high oxygen. Therefore, we also do a test by lighting it to see how it burns. We took some granules from the packet and lighted it. The granules burned while melting. This *prima facie* confirmed that it was explosive. The ATS asked us to inspect articles that were in a plastic bottle. The plastic bottle was sealed. We opened it. There were ten small aluminum cylinders, about 1 or 1 ½ inches long. Two white electric wires were attached to each cylinder. The ends of the cylinders to which the wires were attached were crimped. The other ends of the cylinders were pressed inside, i.e., they were concave. I realized on my experience that these are detonators. There is ASA compound in the detonator, i.e., in the cylinder, which is of the weight of 0.35 gm and there is composition explosive of about 0.55 gm in it. This is a primary high explosive,

which is very sensitive to heat, shock and any impulse. I separated them in two bunches of five each and wrapped them in cotton and put them in half cut separate plastic bottles and gave them to the ATS as they are highly sensitive and can explode even if they fall on a hard surface and it was risky to keep the ten detonators together.

12. I was called to the ATS office at Kalachowki on 20/10/06 with my team. We reached there at about 4.00 p.m. PI Tajne showed me a written order of the court containing the direction about disposing the ten detonators that I had seen on 09/10/06. He gave me the ten detonators and we brought them in our vehicle safely to Girgaon Chowpaty. We had kept it safely in the vehicle in the bomb basket. PI Tajne and his team had also come with us to Girgaon Chowpaty. I took the ten detonators in my possession and gave their containers to the ATS persons. I asked my team members to prepare a pit towards the direction of the water as per our procedure. Each detonator was kept in the pit, wires of dynamo were attached to the wires of the detonators, the detonators were covered with sand and a sandbag, the dynamo wires were connected to the dynamo and electric current was generated and the blast was done. This

procedure was followed for all the ten detonators. I collected the remains of the detonators, like pieces of casings and wires and gave them to the ATS. (Witness is shown Arts. 281 and 282). The white wires in Art-281 and the aluminum pieces in Art-282 are the same.

(Adjourned for recess. Learned SPP submits that he has work in the High Court and will return by 3.30 p.m. Hence, K.B at 3.30 p.m.).

Date : 14/10/11 **SPECIAL JUDGE**

Resumed on SA after recess

13. (Learned SPP makes a request for showing the Arts. 346 to 359 to the witness. He is shown the articles). Art-346 is a soldering gun used for soldering diodes, triodes, resistors, capacitors and electronic components on printed circuit boards. Art-347 (1 to 4) are pieces of soldering wire, Art-348 is soldering paste, Art-349 is printed circuit board, Art-350 is multimeter, Art-351 (1 &2) are forceps, Art-352 is screw driver, Art-354 (1 to 22) are resistors, Art-355 (1 &2) are capacitors, Art-356 is a wire wrapped over the central rod of battery cell, Art-357 (1to8) are transistors, Art-358 (1 to 9) are LEDs and Art-359 (1 to 6) are diodes. (Learned SPP makes a request

for showing the Art-334 to the witness). The said article consists of two ICs, capacitor, LEDs, resistors, nine volt battery cap that can be fixed over a rectangular nine volt battery. The long black wire attached to the PCB is the speaker wire of a mobile, with the ear phones removed with a switch in between and a earphone jack at the other end. Bomb triggering mechanism can be prepared with the help of the PCB and the other electronic components that I described above. The circuit Art-334 in itself cannot be termed as a triggering mechanism, but it can be used for DTMF ICs (Duel Tone Multi Frequencies) for receiving a tone and converting it into binary code. If it is connected to a mobile handset and if that mobile handset is called or an alarm is set in the mobile, then the circuit gets activated, it draws power from the battery and sends the electric current to the detonator. Even if a receiver circuit is attached to it, it may work in the same manner by receiving the signal and converting it into binary code, because of which the circuit gets activated. (Witness is shown Art-303). The cooker Art-303 can be used as a container for IED. (Witness is shown Art-284). Ammonium Nitrate is basically a high explosive. It is used as a fertilizer and is easily available in the

market. It is the main component of industrial explosives like dynatex, gelatine and ANFO (Ammonium Nitrate with Fuel Oil). If 94% of ammonium nitrate is mixed with 6% of fuel oil, then it becomes a high explosive.

14. Pure RDX coming out from the factory is like crystalline white salt. It cannot be used as an explosive in that form, but it has to be mixed with fuel oil and plasticizers and then it becomes a high explosive. Charcoal powder is combustible material. It can be mixed with RDX.

15. I can explain the preparation of IED by drawing a diagram. (Learned SPP asks the witness to draw a diagram. The witness is given a blank paper. Witness has draw a diagram and signed it. Hence, it is marked as **Ext.1660**). The explosive, the detonator, power source and the triggering mechanism can be put in the cooker Art-303 or the wires of the detonator can come out of the hole where the whistle fits and the triggering mechanism can be kept outside so as to receive signals. One detonator can be exploded by the electric current supply of 1.5 volts. One explosive called booster is in cylindrical form and detonator can be put in the hole in the

booster, which magnifies the detonating waves. Such a booster is made of composition explosive.

(Learned SPP submits that he has almost completed the chief-examination, but if something remains to be asked he would do so on the next date. Learned advocate Shetty submits that for cross-examination the defence be given time after the Diwali vacation and the defence has no objection if other witnesses are interposed).

(Y.D. SHINDE)
Date : 14/10/11 **SPECIAL JUDGE**

Date : 01/11/11

Resumed on SA

Cross-examination by Adv P. L. Shetty for A3, 8, 9, 11

16. I am not attached to the BDDS since 2008. The ATS called me for the first time on 09/10/06 in connection with the blasts of 11/07/06 for the purpose of showing certain articles that were alleged to be recovered. Teams of BDDS were formed on the day of the blasts and we visited the sites of the blasts as per the orders of the main control room. I had visited the blast sites at Mahim and Khar subway tracks. I cannot tell the exact time at which I visited the blast site at Mahim, but I had gone on the same day. I cannot tell the exact time at which I visited the blast site at Khar, but I had gone on the same day after visiting the site at Mahim. Handler constable Nawar, HC Shelar, handler Gawde and constable Mahadik were with me. I cannot say whether any officer was present with me or not. I was at the Mahim blast site for about one or one and a half hours and for about the same time at the Khar blast site. The affected bogies and the trains were at the sites. I did not prepare any panchanama at both the sites as it is not my work. There is an entry in the station

diary of the BDDS about my visits to the sites. I have not brought the station diary with me today. The ATS had recorded my statement on 20/10/06 in connection with the blasts. That was the first occasion when my statement was recorded. There was no occasion till today for me to produce the station diary entries before the ATS. The ATS did not demand the station diary entries during my statement or thereafter. The ATS did not record my statement about my visits to the blasts sites on the day of the blasts.

17. I do not know the names of the officers who are in the BDDS at present. It is attached to the Mumbai Police Commissionerate. Persons having knowledge about bomb detection and disposal are in the BDDS at present also. Those officers have also been given training in bomb disposal. I have taken that training prior to 2006. The training at NSG training Center, Manesar, Gurgaon, Haryana was for three weeks on each occasion. In 1999 the training was somewhere in December and January. In 2003 it was in October. I do not remember the month of the training at SRP, Group-I, Pune in 1998. The training at the Military Center, Khadki, Pune was in February 2006.

18. PSI Kisan Gaikwad of ATS recorded my statement on 20/10/06. I do not remember whether ACP S. L. Patil was present at that time. PI Tajne was present. It was only PSI Gaikwad who took my statement. PI Tajne did not ask me any questions. I do not remember whether I met ACP Patil on that day. I was in the ATS office at that time for about 30-45 minutes.

19. PI Tajne was present when I went to the ATS office on 09/10/06. I do not remember whether ACP Patil was present on that day. PI Tajne was the only officer who showed me the articles. I was in the ATS office for about 2 to 2 ½ hours on that day. The ATS did not record my statement on that day. It is not true that no panchanama was prepared when the articles were shown to me and I inspected them. I cannot tell the names of the panchas. I cannot say who prepared the panchanama. I was not asked to sign on the panchanama. As the articles of explosives were shown to me, it was necessary to prepare a panchanama. I did not take photographs of the detonators and the granules on 09/10/06. The granules were approximately 1 ½ to 2 kgs. I did not weigh them. I had inspected the plastic bags in which the granules were regarding the seal and

the label. The date on the label was 09/10/06. I cannot tell the name of the officer whose signature was on the label. I took out about 10-15 grms granules for my examination. The plastic bag was then packed and sealed. I was present throughout the process of preparing the panchanama. I did not weigh the detonators. The weights of the contents of the cylinder about which I have stated, are standard as the detonators are factory made. There was no marking of the make of the factory on the detonators or about their weight. I gave the weights of the contents of the cylinder as per my knowledge. The detonators were not weighed at the time of disposal also. We did not take photographs of the articles on the day of their disposal.

20. I do not read Mumbai Mirror. I read Maharashtra Times only. I am aware that a bombshell was found in Mumbai a few days back. I do not know whether according to the reports, it contained 45 kgs explosives. I do not know whether it was of World War- II 1944. I do not know whether Mumbai police and BDDS had no experts to neutralize the bomb, therefore Army personnel were called. I do not know whether that bomb was neutralized or not. I was not called there. The news about finding this bomb appeared in the

Maharashtra Times. I do not remember the date. I do not remember whether it was in the Maharashtra Times that there were no experts in the Mumbai police and BDDS to neutralize the bomb, therefore Army personnel were called. (Learned advocate requests that paragraph 2 of the news item on the first page of Mumbai Mirror dated 24/10/11 be shown to the witness. Learned SPP objects on the ground that the witness is being questioned about a news item which is not connected with this case. Heard both sides. Request is allowed. The edition is marked as **Ext. 1990**). On going through the paragraph 2, it appears that it is so reported. I do not agree with the report. According to me there are officers who have the expertise to neutralize the bomb. I do not know when the bomb was neutralized. I did not collect any article from the two blasts sites that I visited. I cannot tell the names of the local officers who were present at the sites and from which police stations. Police officers were present.

21. The site of the bomb blasts assumes importance from the point of investigation. It is true that therefore the scene of the offence deserves careful and cautious handling and close and cautious observations. It is true that the experts should have

practical as well as scientific knowledge regarding use and misuse of common explosives. It is true that different types of explosives behave in different ways. They create different explosion patterns depending upon their nature, confinement and quantity. After the post blast investigation, an expert can ascertain the seat of the explosion. On inspection of the site the shattering pattern can be identified, but I do not understand about identification of pressure wave created. On the inspection of the site the intensity of the blast, i.e., whether it was small or big can be ascertained. However, in so far as the identification of pressure wave is concerned, it goes in all the four directions. Shattered pieces of the bomb can be located at the site of the blast. The shattered pieces are in the nature of pieces of the container in which the bomb was placed, the splinters that were in the bomb, pieces of battery cells, pieces of electronic circuits, etc. Such type of pieces are required to be collected from the site of the blast. The splinters can be found to be embedded in nearby objects which have come in the way of the blast wave.

22. When we go for disposal of a live bomb, it is necessary to preserve the remains of the disposed bomb. I cannot say whether

it can be called as incriminating material of the disposed bomb. I do not agree that it is necessary to photograph the explosive device at the site of its disposal. I do not agree that such photograph would show label on the device, knot, structural features and presence of fuse cords or other initiation devices. I have read books on bomb detection and disposal by Major T. V. Narayanan and the notes that we received during training. The above book also contains the precautions to be taken for the disposal of a live bomb. The book does not say that photograph should not be taken at the time of disposal. I cannot point out any authority that shows that such photograph is not necessary. It is not true that an explosive device can be made ineffective by drowning in water. I do not agree that drenching an explosive in water is an effective way of making it inactive. If an explosive is in the form of black powder, it can be made ineffective by drenching it in water. There are some explosives which explode when they come in contact with water. I do not agree that oil is more effective and safe to make such explosive ineffective.

23. I had no occasion to go through the book Forensic Science in Criminal Investigation and Trials by B. R. Sharma.

(Learned advocate asks the witness to go through paragraph '14.6.7 Disposal' and the bracketed portions on page 940). Concerning the first bracketed portion, I have to say that it is photographing of the explosive device at the site of the blast and not at the site where it is disposed of. Concerning the second bracketed portion, I have to say that it is concerning the black powder only, which can be made inactive by drenching it in water. Concerning the third bracketed portion, I have to say that I do not agree because fuel oil is mixed with Ammonium Nitrate, RDX for making them explosive. I do not have any authority or book that speaks contrary to the views in this book. I am not contradicting the views expressed in this book, but I am contradicting the general nature of the questions. I am not having any manual that has any material which is contrary to the views expressed in the book.

24. I had read my statement after it was over. The officer did not ask me any questions about my qualifications, training and the procedure in bomb detection and disposal, the components of IEDs and as to what are IEDs, ingredients of the explosives, how IEDs explodes.

25. I did not state to the ATS officer that my education qualifications are B. Sc., L.L.B., ICWA Inter, that my subjects at B.Sc were Biology, Chemistry and Physics, that I have taken training in bomb disposal twice in the NSG training center, Manesar, Gurgaon, Haryana in 1999 and in 2003, that I have taken training of anti sabotage checking at SRP Group-I, Pune in 1998 and disposal of military ammunition at Military Center, Khadki, Pune in 2006, that I have an experience of 8-9 years in this field, that during this period I have disposed of many IEDs, i.e., Improvised Explosives Devices and military ammunition, but I cannot tell the exact number, that I have given evidence about my work in the court many times. I cannot tell the number of cases in which I have given evidence about detection and disposal of bombs. I cannot tell in which bomb blast case I have given evidence. I gave evidence in the courts at Mumbai. I do not remember the case and the year in which I gave evidence. I had not given evidence in the 1993 bomb blasts. I had given evidence in the Sewree fast track court.

26. I had not stated when I gave my statement the contents of my examination-in-chief paragraphs 2 to 10 except the portion in

paragraph 2 - if the police stations or any other branches seize any explosives or accessories of bomb, then we destroy them on the orders of the courts.

27. I had not stated that explosive substance basically contains high oxygen, that therefore, we also do a test by lighting it to see how it burns. I had stated that we took some granules from the packet and lighted it, that the granules burned while melting, that this *prima facie* confirmed that it was explosive. I cannot assign any reason why it is not written in my statement. I had not stated when I gave my statement that the ends of the cylinders to which the wires were attached were crimped, that the other ends of the cylinders were pressed inside, i.e., they were concave, that I realized on my experience that these are detonators, that there is ASA compound in the detonator, i.e., in the cylinder, which is of the weight of 0.35 gm and there is composition explosive of about 0.55 gm in it, that this is a primary high explosive, which is very sensitive to heat, shock and any impulse.

28. It is true that other than on 09/10/06 and 20/10/06 I was not shown any articles by the ATS. It is true that I saw the Arts. 284,

303, 334 and 346 to 359 for the first time when they were shown to me in court. The fuel oil that can be mixed with RDX can be petrol, engine oil, diesel. The fuel oil should be more than 6% of the explosive substance. I did not state when I gave my statement that pure RDX coming out from the factory is like crystalline white salt, that it cannot be used as an explosive in that form, but it has to be mixed with fuel oil and plasticizers and then it becomes a high explosive, that charcoal powder is combustible material. It can be mixed with RDX.

29. It is not true that I am not an expert in bomb detection and disposal and the components of a bomb, that this is the reason why I did not give all the above details when I gave my statement, that I deposed falsely as I am attached to the ATS.

(Adjourned for recess)

Date : 01/11/11 **SPECIAL JUDGE**

Resumed on SA after recess

Cross examination by adv Wahab Khan for A2, 7, 10 & 13

30. The diagram Ext. 1660 that I have drawn is the basic circuit diagram of an IED. It can be exploded by additionally using

any mechanism like remote control to operate the switch. I cannot say by which mechanism exactly it can be operated. The ATS did not ask me to prepare any diagram like Ext. 1660. The investigating machinery in this case did not inform me about finding any power source. I did not see any power source in the articles that were shown to me in the court. All other articles except the detonators and explosive powder are easily available in the market. Except the mobile headphone, whose speakers are removed and the wires are attached to the circuit, other articles like pressure cooker, whistle, ring are household articles. I have seen many electronic circuits. I have not studied the science of electronic circuit. However, I have learnt in physics about the components like diodes, resistors, capacitors, etc. Circuits are normally lawfully used in electronic devices. I cannot identify any circuit as being of a particular electronic device. I can identify a company made circuit and a homemade circuit. I cannot say on looking at the points in a circuit as to whether it has been used. I cannot say whether the PCB Art. 334 is of a mobile phone or walkie-talkie or radio.

31. I had gone to the ATS office many times for detecting

and defusing explosives, for giving statement and even to meet my batch-mates who are there. I had no batch-mate in the ATS in 2006. My batch-mate API Kedar Pawar is in the ATS this year.

32. There are two types of electric current, AC and DC. I can explain the type of power source that is mentioned in the diagram Ext.1660. Any battery that gives 1.5 volt current is a power source. The circuit will not be completed without power source or any one component shown in the diagram. Switch can be prepared from the mechanism Art.334. The function of a switch is that the circuit is broken if it is switched off and it is completed if it is switched on. Continuity of a circuit can be checked by Ammeter. I cannot say whether all the components required for making a complete switch are in the PCB Art-334. Maximum components are there. I cannot prepare a complete switch with the help of all the components that are in Art.334. I cannot say without looking at the PCB as to what components are less. I can say by my memory that there is no receiver circuit and a transmitter. According to me the switch can be completed by attaching these two items provided all the other components in the PCB are in working condition. The receiver is an

electronic gazette required for receiving radio frequencies, infrared rays. FM radio is also a kind of receiver. The transmitter is a station from which radio frequencies are emitted. The switch cannot be completed in the absence of one of these components. In case of explosive in a pressure cooker, the receiver is in the cooker and the transmitter is outside. The circuit will be activated once a frequency is sent from the transmitter. Transmitter is a remote control. The PCB Art. 334 is a circuit that can be remotely activated.

33. It is not true that my batch-mate API Kedar Pawar has tutored me to prepare the diagram Ext. 1660. I am aware about the procedure to detect explosive at a particular place. It is not a difficult task to identify the residues of a bomb at the blast site. It is not true that it is difficult to identify it as very little of the bomb material remains at the site. It is not true that it is difficult to detect bomb material if it becomes wet because of water and gets mixed with non-explosive material. PCB like Art.349 is available in the market. It can be used in an electronic device. I do not think that the PCB is used, but I am not sure. I cannot assign any reason why I am not sure. I cannot describe as to what the end points are called. It is true that

most of the end points show that there are metal deposits on them. The PCB is company made. The board is discarded if there is any manufacturing defect in the circuit on the board. I cannot say whether the screw driver Art-352 is designed only for Nokia mobile handset. Arts.354 to 359 are electronic components.

34. We had not taken video shooting or photographs at the time of disposing the detonators. It is not true that we had not disposed of the detonators and I deposed falsely on the say of my batch-mate API Pawar.

Cross-examination by Adv Rasal for A1 & 4 to 6

(Learned advocate had prayed at 2.00 p.m. for deferring his cross-examination to tomorrow. Hence, adjourned) .

(Y.D. SHINDE)
Date : 01/11/11 **SPECIAL JUDGE**

Date : 02/11/11
Resumed on SA

35. PI Anthony was the head of the BDDS in 2006. There is only one squad for bomb disposal in Mumbai. Station diary entry is made while leaving the office for attending any call and after returning, describing the work that was done. I do not know whether the ATS officer had come to our office before 20/10/06 and had discussion with my superior. The work that the dog has done is also described in the station diary entry. It is not true that the dog is required to be repeatedly taken to the same spot for identifying explosives. PSI Gaikwad did not take the statement of the dog handler. The ATS did not ask me to give the station diary entries about the work that I did on 9th and 20/10/06. I did not produce the station diary entries before the ATS. It is true that there is no document before the court to show what the dog did on 09/10/06. It is true that the ten detonators that were shown on 09/10/06 were together in a plastic jar. Even if five detonators together would have fallen, it could have been dangerous. As I wrapped them in cotton and took the necessary safety measures, I did not keep each one separate. It is not true that I did not know on 09/10/06 as to the

substance that was in the detonators. I did not describe the contents of the detonators when I gave my statement on 20/10/06. It is not true that I did not describe the contents of the detonators that I saw on 09/10/06 when I gave my evidence. My statement was recorded in 15-20 minutes at about 7.00 p.m. at Kalachowki ATS office. I do not know whether the ATS officers did not know that they require the court order in connection with the disposal of the detonators. I did not feel it necessary from the point of safety to take the detonators with me on 09/10/06. There were bystanders at the Girgaon Chowpaty when we disposed of the detonators, but the area of disposal was evacuated. I selected the place of disposal. PI Tajne, PSI Gaikwad and staff of the ATS were present at that time. I did not see whether they talked with any bystanders. The detonators had electric wires about 1 to 1 ½ meters long. The wires that were further attached to these wires in order to blast the detonators were with us. All the detonators were blasted in one pit one after the other. We did ten blasts. Same additional wires were used for all ten detonators. The ATS officer did not ask for the additional wires or their portions. After every blast the sand bag used to be removed, the pit used to be

scraped and then the next detonator used to be placed in the pit. After every blast only two persons from our team used to go to the spot of the blast. I and one constable used to go to the spot. The same sandbag was used every time. The sandbag was damaged to some extent. I do not remember whether the ATS did not take the sandbag in their possession. It is incorrect to say that I do not remember what the ATS took in their possession on that day. The ATS officers did not come near the pit during the entire procedure. It is not true that I cannot tell the strength of the blast by the detonators. The ATS did not ask me about the strength. I did not state about it when I gave my statement. I did not describe the wires that were attached to the detonators, in my statement. The ATS did not show me the Arts. 284, 303, 334 and 346 to 359 and ask me as to how they can be used and I did not state about their use during my statement.

36. I did not state during my statement that Ammonium Nitrate is basically a high explosive, that it is used as a fertilizer and is easily available in the market, that it is the main component of industrial explosives like dynatex, gelatine and ANFO (Ammonium Nitrate with Fuel Oil) and that if 94% of ammonium nitrate is mixed

with 6% of fuel oil, then it becomes a high explosive. I did not collect samples of the sand at the site of the blast. It is not true that I did not collect any other articles. I did not send the articles that I collected there to the forensic laboratory as I handed over them to the ATS.

37. I do not know about the provisions in the Bombay Police Act for taking precautions before disposing of explosives. It is not true that I did not dispose of the detonators on 20/10/06.

(Learned SPP requests for permission to re-examine the witness on the point of the questions that were asked in connection with production of station diary entries before the ATS and there being no documentary evidence about his visit to the site of the blasts on the day of the blasts. Learned adv Shetty submits that there is no ambiguity in the answers given by the witness and he had not asked for producing the station diary entry and the question remains as to why the station diary was not produced during the course of investigation. The cross-examination is not restricted to the examination-in-chief and it cannot be permitted to nullify the answers given in cross-examination. Permission to produce station diary is not granted. However, re-examination is permitted on the point of reason

of the visit).

Re-examination by SPP Raja Thakare for the State

38. I had visited the blasts sites to ascertain whether there was any secondary live IED in the train.

Re-cross-examination by adv Wahab Khan for A2, 7,10,12 & 13

39. Declined.

Re-cross-examination by Adv P. L. Shetty for A3, 8, 9, 11

40. I visited the first site approximately one and a half hours after the blast. I cannot say what process was going on at the sites when I visited them. I cannot say which officers of railway police force or ATS were present there. I did not volunteer when my statement was recorded that I had visited the blasts sites on the day of the blasts and I did not state so.

Cross-examination by Adv Shetty h/f Rasal for A1 & 4 to 6

41. Declined.

No re-examination.

R.O.

Special Judge

Date:-02/11/2011

(Y.D. SHINDE)
SPECIAL JUDGE
UNDER MCOC ACT,99,
MUMBAI.