
(2010) 07 DEL CK 0315
In the Delhi High Court
Case No : WP (C) 7272 of 2009

Smiths Detection (Asia Pacific) Pte Ltd. and Another	APPELLANT
Vs	
Union of India (UOI)	RESPONDENT

Date of Decision : 12-07-2010

Acts Referred:

Constitution of India, 1950 — Article 14, 19(1)

Citation : (2010) 119 DRJ 238

Hon'ble Judges : Veena Birbal, J;Badar Durrez Ahmed, J

Bench : Division Bench

Advocate : Dushyant Dave, Darpan Wadhwa, Kush Chaturvedi and Paritosh Gupta, for the Appellant; Naresh Kaushik, Amita K. Chaudhary and Aditi Gupta, for the Respondent

Final Decision : Dismissed

Judgement

Badar Durrez Ahmed, J.—The petitioners seek the quashing of the Global Notice Inviting Tender (GNIT) bearing No. 1/2009 issued by the Central Board of Excise and Customs, Department of Revenue, Ministry of Finance, Government of India for procurement of three mobile gamma rays scanners. An alternative prayer has also been made that the said GNIT be quashed only to the extent that it limits and restricts the equipment to be only based on gamma ray technology or to treat such a limitation and restriction as a non-essential condition of the tender.

2. The petitioner No. 1 is a manufacturer of container scanning systems which are based on X-ray technology. The petitioners are aggrieved by the said GNIT inasmuch as the same has been issued in respect of three mobile container scanning systems for the ports located at Chennai, Kandla and Tuticorin, but is restricted only to gamma ray scanners. The petitioners are aggrieved by the fact that mobile X-ray scanners, which according to them, are as good, if not better, than mobile gamma ray scanners, have been arbitrarily and unreasonably excluded from the said GNIT.

3. By virtue of the said GNIT, the respondent invited sealed global tenders for supply, installation, commissioning, site preparation and maintenance of three mobile gamma ray container scanning systems (MGCSS) for truck/trawler mounted cargo containers and other transport vehicles as required and mentioned in the tender. The said mobile gamma scanning systems (hereinafter referred to as "mobile gamma ray scanners") were to be located at the Chennai Port, the Kandla Port and the Tuticorin port. The entire controversy in this petition is with regard to the fact that the GNIT has been issued in respect of only mobile gamma ray scanners and mobile X-ray scanners have not been included in the said GNIT. Various allegations of arbitrariness and bias/favouritism have also been leveled by the petitioners against the respondents. It was alleged that a pilot project was taken up in 2003 for installation of a container scanning system at the Jawaharlal Nehru Port Trust Nhava Sheva, Maharashtra for use by the customs authorities. Apparently, the Government of India entered into an MoU dated 11.08.2003 with the Electronics Corporation of India Limited (ECIL) to study the user requirements vis-a-vis the commercially available technologies and to recommend suitable systems for the said Nhava Sheva Port. It is alleged that ECIL recommended the installation of a high energy X-ray system (relocatable version) Rapiscan System (Type 221 3R) and one mobile gamma ray system (Rapiscan Type 4200 GaRDS). According to the petitioners, the procurement of the aforesaid systems was done by ECIL and the equipment was procured from Rapiscan, USA without floating any tender for the same. It would also be relevant to point out that there was litigation in the Andhra Pradesh High Court concerning the said scanning systems at Nhava Sheva which had been initiated by the petitioners herein. The writ petition being WP (C) 21688/2003 was dismissed by the learned Single Judge who decided not to interfere in the proceedings as it was a pilot project and the appeal therefrom WA 615/2004 was also dismissed by a Division Bench of the same court.

4. In the meeting of the Central Board of Excise and Customs held on 01.12.2004, it was decided, inter alia, to constitute a committee to advise the Board on technical issues, such as the technology best suited for Indian Customs, for installation of scanners at various ports in the country. Thereafter, a committee, headed by the Director General of Revenue Intelligence was formed to visit countries in Asia where scanning equipments had been installed and to give recommendations for selection of the technologies. The Committee also comprised of experts from the Department of Atomic Energy and Defence Research & Development Organisation (DRDO). By its report dated 04.07.2005, the said Committee recommended that a combination of the machines and technologies would be desirable in most of the major ports so as to strike the right balance between facilitation and enforcement, speed and detection and prevention of frauds. Consequently, it was opined that it would be desirable to use 9MeV Fixed X-ray scanners in conjunction with mobile gamma ray scanners at major ports. As stated in the additional affidavit of Mr Mahendra Ranga, Additional Commissioner, Directorate of Logistics, CBEC, Department of Revenue,

Ministry of Finance dated 07.11.2009, presentations were made by various manufacturers of scanning equipments, including the petitioners before the Committee in February, 2005. The said affidavit also reveals that the Committee took note of the World Customs Organisation (WCO) [Secretariat Note on Container Scanning Equipment Guidelines to Members on Administrative Considerations of purchase and operation dated 22.10.2003]. The said report of the Committee was, therefore, based on onsite evaluation of the scanning equipment and interaction with the agencies concerned as also on an examination of the WCO Guidelines. The relevant extracts of the recommendations made by the said Committee are as under:

3. Thus it would be desirable to use the 9MeV X-ray fixed scanner in conjunction with a mobile gamma ray scanner at such locations like major ports

7. Thus a combination of machines and technologies would be desirable in most of the major ports so as to strike a right balance between facilitation and enforcement, speed and detection and [prevention] of frauds.

9. In this background it is recommended that major seaports like Chennai, Tuticorin, Kandla sought to be covered, in the first phase should be equipped with two scanners -- a 9MeV X-ray scanner and a mobile gamma ray scanner....

5. These recommendations were accepted by the Government and a proposal was initiated for procurement of seven container scanners, 4 of which were to be 9-MeV Fixed X-ray scanners and the other three were to be mobile gamma ray scanners. The Integrated Finance Unit, Ministry of Finance scrutinized the said proposal and the same was subsequently submitted to the Department of Expenditure which sought clarifications. After the clarifications were given, the proposal was discussed and approved by the Committee on non-plan expenditure on 14.02.2006 and as part of the sanctioning process, the Ministry of Home Affairs and Ministry of Shipping were also consulted. In the counter-affidavit filed on behalf of the respondents, it is further stated that the Ministry of Home Affairs had, in turn, also consulted the Central Security Agencies before giving their views. After all these inputs, the proposal was finally approved by Union Cabinet on 27.10.2006. It is also stated in the counter-affidavit that during the process of approval, note was taken of the recommendations of the Committee as well as the performance of the scanners during the pilot project.

6. Pursuant to the said Cabinet approval, a global notice inviting tender for procurement of three mobile gamma ray scanners was floated by the Directorate of Logistics on 12.01.2008. It may be pointed out that the tenders for four fixed X-ray scanners were also floated on 16.11.2008. However, because of certain propriety concerns and for technical reasons, the global notice inviting tender issued on 12.01.2008 was scrapped and it was decided to re-tender the process for mobile gamma ray scanners. According to the petitioners, the GNIT of 2008 was scrapped because one Mr Govindrajan, who headed the Technical Expert Committee for the drafting of the specifications, had a conflict of interest

inasmuch as he was a paid consultant with ECIL which also had a joint venture with Rapiscan. It was alleged that it is because of this conflict of interest that the GNIT of 2008 was cancelled.

7. The grievance of the petitioners is that despite the fact that the GNIT of 2008 was cancelled because of the propriety concerns, the respondent, by issuing an identical tender in 2009, had acted in an arbitrary and a biased manner. According to the appellant, the only change in the specifications between the GNIT of 2008 and the present GNIT of 2009 was in Clause 4.28 which prescribed the radiation source. While in the GNIT of 2008, the radiation source was stipulated to be Cobalt-60 isotope preferably of 2 curie, under the present GNIT of 2009, the radiation source was prescribed to be Cobalt-60 isotope preferably of 1 curie. According to the petitioners, since Mr Govindrajan had a hand in drafting the specifications and since he was found to have a conflict of interest, those specifications ought to have been scrapped.

8. However, the present GNIT No. 1 of 2009 was floated for procurement of the said three mobile gamma ray scanners. After going through the pre-bid conferences and visit to the sites, bids against the tenders were received by the respondents from four parties on the last date of receipt, i.e., on 03.03.2009. It is interesting to note that the petitioners had also submitted a bid for mobile X-ray scanners as against the requirement of mobile gamma ray scanners.

9. Letters had been received by the Respondents from Members of Parliament and others as regards the selection of gamma ray technology for mobile scanning systems. According to the petitioners, the WCO report/paper indicates that the X-ray based scanners were as good, if not better, than the gamma ray scanners. It was submitted on behalf of the petitioners that though that was the view of the WCO, in the opinion of the petitioners, the gamma ray technology was inferior, both in terms of clarity and penetration. The learned Counsel for the petitioners submitted that even if it be assumed that the gamma ray technology was not inferior and that both technologies were comparable, the respondents should not have excluded mobile X-ray scanners from the ambit and scope of the impugned GNIT No. 1 of 2009. According to the learned Counsel for the petitioners, this exclusion amounts to creation of a monopoly and is an unreasonable and arbitrary restriction in the scope of the tender as it limits the field. The learned Counsel for the petitioners further submitted that the mobile X-ray scanners met all the specifications of the GNIT of 2009 except the requirement of the same being based on gamma ray technology. The learned Counsel raised the question as to why was the X-ray technology excluded from the tender for mobile scanners when, according to him, the X-ray technology produced greater clarity and had a greater penetration than the competing gamma ray technology?

10. The learned Counsel for the petitioners placed reliance on the following decisions:

1) Rashbihari Panda etc. Vs. State of Orissa, ;

- 2) Gharda Chemicals Limited Vs. Central Warehousing Corpn., ;
- 3) Association of UPS and Power Conditioning Systems Manufacturer Vs. Society of Applied Microwave Electronics Engineering and Research (Sameer) and Others, ;
- 4) Zippers Karamchari Union Vs. Union of India and Others, ;
- 5) Reliance Energy Limited and Another Vs. Maharashtra State Road Development Corporation Ltd. and Others, ;
- 6) Union of India and Others Vs. Dinesh Engineering Corporation and Another etc., ; and
- 7) Bidi Supply Co. Vs. The Union of India (UOI) and Others, .

The learned Counsel for the petitioners submitted that the State is bound to act in a fair, non-arbitrary, bona fide and unbiased manner in matters involving public largesse and award of tenders. The State's action must also conform to the Wednesbury Principle of reasonableness. Relying on *Rashbihari* (supra), it was submitted that the Supreme Court in that case held that limiting the right to make offers only to a limited class of persons and thereby shutting out all other persons was *ex-facie* discriminatory and imposed unreasonable restrictions and singled out other traders for the discriminatory treatment. We find that in *Rashbihari* (supra), the Government of Orissa had decided to invite offers for advance purchases from only those persons who had purchased Kendu leaves from individual units during 1967 and had not defaulted in payment of dues. The Supreme Court held that this classification based on existing contractors had no nexus with the object and, therefore, the classification was bad and exclusion of others was held to be arbitrary and contrary to Article 14 of the Constitution of India. The learned Counsel for the petitioners sought to draw a parallel between this exclusion and the exclusion of X-ray based technology from the impugned GNIT of 2009. We do not agree with the submission of the learned Counsel for the petitioners. In *Rashbihari* (supra), the exclusion was of a class of persons, whereas in the present case, the tender has been floated only in respect of a particular technology. It does not exclude some persons who answer to that technology while including others falling in the same category. Therefore, no parallel can be drawn from the Supreme Court decision in the case of *Rashbihari* (supra).

11. The learned Counsel for the petitioners, relying upon *Zippers Karamchari Union* (supra) and *Dinesh Engineering Corporation* (supra), submitted that the Supreme Court held that courts can interfere even in matters of trade, commerce and economic policy, if the same are found to be contrary to the provisions of Constitution or of any law or if such policy itself is wholly arbitrary.

12. However, we find that in *Zippers Karamchari Union* (supra), the Supreme Court held that in matters of trade and commerce or economic policy, the wisdom of the Government must be respected and courts cannot lightly interfere

with the same unless such policy is contrary to the provisions of the Constitution or any law or such policy itself is wholly arbitrary. This decision of the Supreme Court makes it clear that normally in matters of trade and commerce or economic policy, the courts should not interfere with the decisions of the Government. It is only in case where the policy itself is contrary to the Constitution or is wholly arbitrary that courts can interfere. In *Dinesh Engineering Corporation (supra)*, the Supreme Court observed as under:

12. ...Any decision be it a simple administrative decision or a policy decision, if taken without considering the relevant facts, can only be termed as an arbitrary decision. If it is so then be it a policy decision or otherwise, it will be violative of the mandate of Article 14 of the Constitution.

From these two decisions of the Supreme Court, it is clear that even in matters concerning policy, the courts can interfere provided there is manifest arbitrariness and consequent violation of Article 14 of the Constitution.

13. The learned Counsel for the petitioners referred to the decision in the case of *Reliance Energy (supra)* to submit that the Supreme Court had held that Articles 14 and 19(1)(g), inter alia, constitute a guarantee for a level playing field. In fact, the decision in *Reliance Engineering Limited (supra)* deals in detail with the doctrine of "level playing field" and holds that this doctrine is embodied in Article 19(1)(g). These are well-established principles, but the question arises as to whether these principles are applicable in the present case or not. We have to see as to whether the respondent's decision to go in for gamma ray technology alone insofar as mobile scanners are concerned, is without any basis or not. For, if we were to find there is some logic, reason or basis for the respondent's decision to go in for gamma ray technology to the exclusion of other technologies, including the X-ray technology, then, it would not be possible for us to hold that the said decision was arbitrary, unreasonable or without any basis.

14. The learned Counsel for the petitioners also referred to *Gharda Chemicals Limited (supra)* which was a decision in which the court deprecated the practice stipulating "tailor-made" conditions in the tender so as to exclude some and favour others. A reference was also made to *Systems Manufacturer (supra)*, which was also a Division Bench decision of this Court and which followed the Supreme Court decision in *Rashbihari Panda (supra)* and held that the conditions imposed in the tender must have a nexus with the object and found that the condition of a turnover of Rs 10 crores had no nexus with the object and, therefore, was arbitrary. The Division Bench also held that it was a well-settled principle that a wider participation would be in public interest. In fact, the Division Bench went to the extent of holding that the right of a person to participate in a tender was a fundamental right.

15. These again, are the principles with which there is no quarrel. The issue is whether there were tailor-made conditions in the present GNIT of 2009 and whether the decision of the respondent to go in for mobile scanners based on

gamma ray technology alone was unreasonable or arbitrary. The decision in Bidi Supply Company (*supra*) also deals with the principles which are embodied in Article 14 of the Constitution generally and, therefore, do not require any specific comment.

16. According to the learned Counsel for the respondent, the only question, if at all, which arises for consideration in this writ petition, is whether there was any justification for excluding X-ray technology from the tender for mobile scanners. The learned Counsel submitted that there was such a justification. He submitted that the gamma ray source was smaller and modular, whereas the X-ray technology was complex and had a greater power requirement. He submitted that these mobile gamma ray scanners were not being deployed at the said three ports in isolation, but were in conjunction and combination with Fixed Scanners at those very ports. The Fixed Scanners were based on X-ray technology, whereas it was felt that for mobile scanners, the gamma ray technology would be more appropriate because of its mobility, speed, size and other factors. The learned Counsel also submitted that the technical advice had been taken from the Department of Atomic Energy regarding radiation etc in respect of the gamma ray scanners and the Department of Atomic Energy had indicated that the same would be safe to use. In this context, the learned Counsel for the respondent referred to the said addition affidavit dated 07.11.2009 wherein, in paragraph 4, it is stated that mobile systems could either be gamma systems or X-ray systems, but the mobile gamma ray scanner systems are simpler because the gamma ray source and holder are very small and modular, whereas the X-ray generators (accelerators) are complex. It is also stated in the said affidavit that as concerns had been raised from various quarters about the use of mobile gamma ray scanners, the matter had been referred to the Department of Atomic Energy by the Department of Revenue by a letter dated 01.10.2007 issued by the Director (Anti-Smuggling Unit, Department of Revenue). In the said letter, it was stated that the concern had been expressed in the media about the advisability of the use of gamma ray scanners and it had been alleged that on account of use of a live radioactive source, the gamma ray scanners posed a threat to public safety and can be an extreme hazard if subjected to a terrorist attack. It was also stated in the said letter dated 01.10.2007 that it has been alleged that gamma ray container scanners cannot detect concealed explosives, radioactive materials, weapons, arms and ammunition etc. It is because of the fact that complex technical/technological issues on radiation matters were being repeatedly raised in the media, the Revenue Department had decided to take technical advice from the Department of Atomic Energy so that the public is not misinformed on a subject which is not only of a great importance to the Revenue Department, but also to security agencies, narcotics enforcement agencies and bodies such as the National Security Council Secretariat.

17. In response to the said letter dated 01.10.2007, the Deputy Secretary (I&M), Department of Atomic Energy issued the letter dated 30.11.2007. The letter indicates that various technical issues, as desired, had been examined in

consultation with Bhaba Atomic Research Centre (BARC) and that the comments of the Department of Atomic Energy were as under:

2. Detection of concealed explosives and contraband goods is a challenging task. While globally a few attempts have been made to detect explosives using "Back scattered X-Ray techniques," neutron based techniques are technologically superior. Of these, Thermal Neutron Activation (TNA) and Fast Neutron Activation (FNA) techniques are appropriate. For detection of radioactive materials, various types of equipments have been developed and are industrially available in the country for Personal as well as Cargo scanning.

3. Most gamma ray scanners use gamma ray source of radio isotopes Co 60 or Cs 137. The strength of source is typically of the order of one curie. These are relatively popular because of lower cost and high throughput cargo clearance rate. Since energy level is lower, Gamma ray scanners are used for light density cargo (depth of penetration limited to 170mm steel equivalent) to quickly check the articles with the manifest and fraud detection is quick. The small foot print requirements, ease of mobility and no extra source power requirements for the generator are advantages of gamma based scanners. For higher equivalent depth of penetration (typically 400 mm of steel) 9 MeV X-ray scanners are preferred. These machines are more expensive and require higher O&M effort. It is to be noted that the license for using such equipment (both Gamma ray and X-ray) has to be obtained from the Atomic Energy Regulatory Board (AERB), Mumbai, for its safe operations without any threat to worker and public safety. There are large number of gamma based systems already in use in the form of Nuclear Gauges (radiography of materials, welds and petrochemical columns); medical (teletherapy which uses very high intensity source to the tune of 1000 curies) and irradiators (used for sanitizing medical goods and enhancing the life of food items, spices, fruits etc.). All these applications based on radioactive isotopes are in vogue and duly supported through Board of Radiation & Isotope Technology (BRIT). With proper design and licensed operation, such systems are quite safe to use.

4. With respect to concerns related to terrorist attacks on gamma based scanners, one needs to recognize that a small pencil source of 1 curie or less is not a viable target as compared to other isotopes used for various applications mentioned above. However, proper security linked with safety in all such matters is necessary.

5. To summarize, gamma ray scanners are advantageous for the first level screening of low density cargo because of high through-put, small foot print and the easy mobility from one place to another and gives high performance/cost advantage. For scanning relatively high density cargo, high energy X-ray based systems are necessary for detection of false cargo and weapons/armaments. For detection of concealed explosives, Neutron based systems are recommended. For detection of radioactive materials various technologies that have been already evolved are usable.

6. In the present scenario, it is no doubt essential for Department of Revenue to have Container Scanners installed at important ports in the country. As no single technology would suffice for all the application requirements, a combination of technologies may have to be deployed to cover all the needs viz., speedier clearance of cargo, proper detection of commercial frauds, concealed armaments, ammunitions, explosives, contraband goods and radioactive materials etc.

18. The learned Counsel for the respondent submitted that it is for the reasons of low running cost of maintenance, lower power requirements, less complexity, smaller footprint, less space requirement and greater mobility that the gamma ray scanners were ultimately preferred over the X-ray mobile scanners. He submitted that these are all technical considerations based on technical advice from experts. He, therefore, submitted that the decision to go in for gamma ray technology insofar as mobile scanners are concerned, was not arbitrary or without any reason. It was a conscious decision on the basis of expert advice. The petitioners, who are manufacturers of X-ray based scanners, ought not to raise any grievances in this regard. It was further pointed out that in the meeting of Committee of the Secretaries held on 12.12.2008, Dr Anil Kakodkar, Secretary Department of Atomic Energy and Chairman Atomic Energy Commission had indicated as was mentioned in paragraph 10 of the said affidavit, that no single technology can satisfy the requirements of different agencies and depending upon the nature of cargo, a combination of different technologies; X-ray MeV systems capable of penetrating densely loaded cargo and gamma system for lightly loaded containers, may be the optimal solution.

19. Referring to para 11 of the said affidavit, the learned Counsel for the respondent further submitted that more than 200 gamma ray scanners stand installed throughout the globe including the developed countries indicating their utility of such systems. The learned Counsel for the respondent placed reliance on the decision of the Supreme Court in the case of Villianur Iyarkkai Padukappu Maiyam Vs. Union of India (UOI) and Others, to submit that in matters of policy decisions, the scope of judicial review is very limited. He referred to the following passage in the said decision:

167. In the matter of policy decision and economic tests the scope of judicial review is very limited. Unless the decision is shown to be contrary to any statutory provision or the Constitution, the Court would not interfere with an economic decision taken by the State. The court cannot examine the relative merits of different economic policies and cannot strike down the same merely on ground that another policy would have been fairer and better.

168. In a democracy, it is the prerogative of each elected Government to follow its own policy. Often a change in Government may result in the shift in focus or change in economic policies. Any such change may result in adversely affecting some vested interests. Unless any illegality is committed in the execution of the policy or the same is contrary to law or malafide, a decision bringing about change cannot per se be interfered with by the court.

169. It is neither within the domain of the courts nor the scope of judicial review to embark upon an enquiry as to whether a particular public policy is wise or whether better public policy can be evolved. Nor are the courts inclined to strike down a policy at the behest of a petitioner merely because it has been urged that a different policy would have been fairer or wiser or more scientific or more logical. Wisdom and advisability of economic policy are ordinarily not amenable to judicial review. In matters relating to economic issues the Government has, while taking a decision, right to "trial and error" as long as both trial and error are bona fide and within the limits of the authority. For testing the correctness of a policy, the appropriate forum is Parliament and not the courts.

20. The petitioners had placed strong reliance on the WCO note. According to the petitioners, the said WCO note states that the X-ray based scanners were as good, if not better, than the gamma ray scanners. It is on the basis of this submission, that the petitioners contended that the X-ray technology could not be excluded from the tender for mobile scanners. The WCO Note was prepared in Brussels on 22.10.2003 and was designed to assist member nations, which were considering the provision for container scanning equipment for the first time by detailing relevant administrative issues. By way of introduction, it was pointed out in the note that the world's nations are faced with increasing volumes of traffic, no corresponding increase in resources and greater expectations from business for faster clearance times. At the same time, governments and society understandably expect customs to provide an effective control on imports, exports and transit traffic and that the events following the September 11, 2001 incident had also heightened the expectations placed upon customs administrations in respect of border security.

21. The note further indicates that in order to cope with this situation, many members were looking at the potential for technical equipment, particularly X-ray or gamma ray equipment for scanning containers, to help meet their objectives by increasing efficiency in examinations. Under the heading "Type of Systems", the WCO Note, inter alia, provides as under:

12. It should be clearly understood at the outset that there is no one perfect system which will address all the needs of a Customs administration. Different systems have different strengths and will be better at identifying some things than others. Dependent on the prevailing traffic and assessed risk, systems may be obtained to scan containers only or to scan the truck or tractor unit as well; there is a consequent cost differential. To cater for different aspects of Customs work, it may be necessary to purchase more than one scanning system, that is a combination of fixed/relocatable and mobile units if this is not feasible, it is necessary to priorities aspects of work, for example revenue, drugs interdiction and security. Within the calculation are considerations of costs, space requirements and mobility. The final decision will inevitably involve a degree of compromise.

13. Put simply, the purpose of container scanning equipment is to show what is

inside a container without the requirement to open it, a process often called "non-intrusive examination". There are a number of ways of achieving this objective although most systems are based on either x-ray or gamma ray technology. Whatever the energy source, it is governed both by the laws of physics and by economics. Higher penetration of the contents of a container gives a better quality of image but requires more energy, requires more energy, which is more expensive, needs more space to operate in, gives less mobility and must have higher levels of protective shielding. Lower levels of penetration have a corresponding decrease in image quality and cost, lower requirements for space and shielding, but provide greater mobility.

22. The essential differences between the X-ray systems and gamma ray systems were highlighted in the said note as under:

(a) X-Ray:

An x-ray is an electromagnetic wave of very short wavelength. X-rays are polychromatic and have a larger spectrum than gamma rays. The power source for x-ray systems is electrical. This means it can be turned on and off. It also means that in a site where the electricity supply is not certain, it is essential to have a back-up generator. The energy level of X-ray systems is measured in mega-electronvolts (MeV). The MeV rating varies in fixed, mobile and relocatable systems; these are discussed in details below. X-ray systems are said to give better image quality but are more expensive.

(b) Gamma Ray:

Gamma rays are monochromatic electromagnetic waves of shorter wavelength than x-rays. Gamma rays are produced from natural isotopes such as Cesium -- 137 or Cobalt-60. These are radioactive sources and the energy emission is continuous. Because of this, the isotopes must be kept in a shielded cabinet at all times. Over time, the radioactive isotope's emission decreases and some Members have included within the contract provision for periodic tests to ensure that levels remain sufficiently high. Gamma ray systems are cheaper to purchase and to operate but the image produced may be more difficult to interpret. A gamma ray unit is much smaller than an x-ray unit and this gives it a higher degree of mobility. This feature means that gamma ray units are far more likely to be mobile or relocatable than fixed.

23. The WCO Note recognized the fact that comparisons between gamma ray and X-ray penetration rates are difficult in that they do not operate under the same measurement systems. It is further stated as under:

16. The usual comparative method is to refer to the thickness of steel. The gamma ray using a Cobalt- 60 radioisotope, which has greater penetration than one based on Cesium- 137, is said to penetrate up to 165 mm of steel. Manufacturers of x-ray equipment show 180 mm for 2.5 MeV mobile x-ray system, over 200 mm for a 3.0 MeV mobile unit and over 300 mm for a 6.0 MeV

relocatable unit. A fixed x-ray system of 9 MeV is said to be able to penetrate around 400 mm of steel. Some mobile systems may have energy levels as low as 450 KV and these certainly would not be able to cope with the majority of container traffic. Members who currently use x-ray systems are of the view that 2.5 MeV is the minimum level for cargo penetration, preferably intensified by illegible accelerator equipment.

24. The WCO Note further recognizes that there is a great deal of research and development activity in container equipment itself and new systems are introduced. Not all of them are X-ray or gamma ray based and each system is designed to deal with a specific customs issue. The Note further states:

To decide which is the most appropriate system for any administration it is necessary to consider its principal intended purposes.

The said WTO Note also indicates that there are three types of scanners, irrespective of the source of radiation, and they are: (a) fixed; (b) relocatable; and (c) mobile. The fixed units are the most expensive and most powerful, typically with energy levels around 9 MeV. This high energy level provides a clear image and fixed units generally tend to be X- ray based. Relocatable scanners typically operate at levels of approximately 6 MeV and require a lighter infrastructure and shielding than fixed units. But, relocatable units also require a dedicated and prepared floor area at each location where they are to be used. The WCO Note makes it clear that while relocatable units may be dismantled and moved to other locations, they should not be viewed as mobile scanners. Mobile units are much cheaper than fixed units, but operate at low energy levels, typically around 2.5 - 3.0 MeV, although they may be upto 4 MeV. The reduced penetration levels are offset by the mobility afforded. The WCO Note further indicates that to set up a mobile scanner at a location it takes as little as 30 minutes and the mobile scanners permit the controls to become flexible so as to address an identified risk wherever it occurs.

25. On going through the WCO Note, we do not find anything therein, which indicates that the X-ray based systems should be preferred over the gamma ray based systems insofar as mobile scanners are concerned. This document also indicates that various compromises have to be made in considering the appropriate technology to be utilized. It has also made it clear that a comparison of X-ray technology with the gamma ray technology purely on the basis of penetration would not be appropriate. The two technologies may operate in the same field, but they are certainly not easy to compare. While the X-ray technology is certainly better for the fixed scanners, the same cannot be said for mobile scanners.

26. After considering all the technical aspects and the specific requirements of the customs authorities, and after taking into consideration the advice from the Atomic Energy Department with regard to safety and radiation concerns, the respondent has chosen to employ a combination of technologies for its scanning

requirements at the said three ports. It has decided to use the X-ray technology of 9MeV for the fixed scanners at the said three locations and the gamma ray technology for its mobile scanners. This decision has been arrived at after considering the pros and cons of both the technologies. These are technical issues which are best left to technical experts and the courts should not interfere with the decisions on such matters unless and until something grossly arbitrary or unreasonable is brought to the attention of the court. On going through the manner in which the decision was taken and also the WCO Note, it cannot be said that the decision to adopt the gamma ray technology for mobile scanners was arbitrary, whimsical or unreasonable. When we cannot return such a finding, there is no question of interfering with the said GNIT of 2009 and with the subsequent tender process.

27. We make it clear that we have not ourselves, as we should not, compared the two technologies. Obviously, we should not be understood to have endorsed either of the two technologies for use in mobile scanning systems. We have only examined as to whether the decision making process adopted by the respondents in choosing the gamma ray technology over the x-ray based systems was reasonable and logical and not arbitrary or whimsical. We have not examined whether the choice of technology was right or wrong, as that is beyond the scope of judicial review. We have found that the decision making process was not arbitrary or actuated with bias but was reasonable and legal.

28. Consequently, the writ petition is dismissed with costs in favour of the respondent and against the petitioners.