

Five years over, have you retested CNG cylinder?

Thousands of vehicles with rundown cylinders run the risk of fatal accidents as most owners are not aware of the 'average lifespan'

SHAHNAZ PARVEEN

Thousands of CNG-powered vehicles operating with run-down cylinders pose serious threat of fatal accidents in the streets of Dhaka as the cylinders have not been retested even after expiry of the five-year average lifespan recommended by the experts.

These vehicles were converted into CNG-run in the first one or two years of introduction of compressed natural gas as an alternative energy around eight years ago.

"Most vehicle owners after conversion thought they can now enjoy the cheap environment-friendly fuel forever. But most of them are not aware that a cylinder requires retesting after five years for safety and other maintenance," said Shafiul Azam, director (Operations), Rupantorito Praktitik Gas Company Ltd (RPGCL).

Country's first conversion workshop was established by RPGCL in 1998 as a model at Darsahara in the city. In the beginning only government vehicles were converted. From the year 2001 private businesses were invited in the CNG conversion sector. Gradually private vehicle owners started showing interest in the cheap fuel.

Around 6,000 private vehicles were converted in the early period -- from 2001 to 2003. Cylinders of the vehicles already exceeding five years of operation need retesting and they belong to the most risky group, according to RPGCL.

Another vulnerable group consists of several thousand imported CNG run autorickshaws introduced in 2001, and taxicabs introduced in 1998 and the following years. These vehicles are also running without retest of their cylinders.

According to RPGCL, even some government vehicles converted more than five years ago require retesting of their cylinders.

"It has been more than 8 years since the first private vehicle was converted into CNG. Many of these vehicles are running with weak cylinders that requires retesting," he added.

Azam said cylinder retesting is mandatory by law. A government notification issued on March 1, 2005 under The Explosive Act, 1884 introduced CNG Rules 2005. Under this rule it is mandatory to retest the cylinder after every five years.

Abu Sayed Md Khurshidul Alam, chief inspector at the Department of Explosives under the Ministry of Energy and Mineral Resources, explained

why retesting is essential.

He said generally a natural gas vehicle (NGV) cylinder can be refilled around 14,000 times. Every time it goes through the refilling process the cylinder expands and after the gas runs out it shrinks again. This cycle continues during and after every refilling.

"After around 14,000 cycles of refilling the metal of the cylinder gradually weakens and its longevity period reduces. Therefore it is recommended that every cylinder has a tentative five-year expiration date and then it must be retested," he said

"The NGV cylinder would not collapse or explode exactly after five years. However, if the cylinder is refilled for longer period it might become dangerous. The cylinder can collapse during refilling, which will be extremely fatal," he emphasised.

At the local filling stations average pressure of refilling is 3000 PSI (pounds per square inch) or 200 bar. "Actual withstand power of a CNG cylinder is usually higher than this. However, for a run-down cylinder even 200 bar pressure can be too much," Alam said.

"A retesting basically works as

a precaution that should be taken to be on the safe side. Owners have become much aware these days. Still there are many private cars, taxicabs, private buses out there running with expired cylinders that requires retesting," he added.

Compressed natural gas or CNG is comparatively a cheaper and environment-friendly fuel. It has become the most popular source of energy for vehicles in recent times due to the skyrocketing prices of liquid fuels.

Currently the official number of natural gas vehicles (NGV) in the country is around 1.5 lakh

against the 6 lakh liquid fuel-run vehicles, according to RPGCL. Among the total, over one lakh vehicles are based in Dhaka.

Almost all of these CNG-run vehicles have been converted locally at various conversion centres with imported cylinders and kits. There are also a few imported original NGVs.

Around 4000 vehicles are being converted into NGVs annually.

Shafiul Azam of RPGCL however said the total number might be more than the official figure as many conversion centres do not report about how many vehicles they convert annually. As per law they are supposed to report to RPGCL.

Currently, the country has 125 government approved CNG conversion centres and over 200 CNG filling stations. Only 73 conversion centres regularly report to RPGCL.

"This causes another concern. If they do not report it becomes extremely difficult to trace all the CNG-run vehicles. Then how can we find old or faulty cylinders?" he said.

"Moreover, there are many unauthorised conversion centres increasing the risk even further as they often use locally manufactured substandard cylinders that was the source of many fatalities in the last couple of years," he added.

Azam said only a handful of the CNG conversion centres have retesting facilities.

Sources at the Department of Explosives said the government has recently approved 10 private companies to open CNG cylinder retesting centres. Currently only three private companies -- Navana, Intraco and Southern Auto -- have such facilities while Sanji CNG conversion will open another retesting centre soon.

Md Sujon Mia, engineer at the retesting unit of Navana, said owners with NGVs are aware these days. Sujon informed that one retesting cost around Tk. 3000.

During the retesting process the cylinder is tested with the highest pressure it can possibly withstand. If it sustains any permanent deformation then it is declared faulty or fatigued and replacing the cylinder is suggested. Up to 5 percent deformation however is normal and is believed to be safe, he mentioned.

After a successful retesting the cylinder is again given a certificate and another tentative expiration date, based on its condition. Then it can run for a certain period of time.



STAR PHOTO

Most of the fatal accidents take place at the filling stations.



Cutting-pasting masters are today's stamp designers

DURDANA GHAS

Potage stamp designing is losing its appeal in recent times as many stamps are being designed by people with no academic background in fine arts or having no idea of creative design.

Non-artists like philatelists and stamp dealers are designing a good number of stamps because they have a good connection with the postal department, said stamp artists, philatelists and sources at the postal department.

Lack of genuine artists' involvement, absence of regular competition or enlistment of artists, and unwritten rules for artists' recruitment and commissioning are a few reasons behind the low quality of stamp designs, said artists.

According to artists, a gap has been created between the senior artists and the postal department over the years due to their non-transparent ways in recruiting artists and a non-functional stamp advisory committee.

They said overall composition is not properly maintained in stamp designing. The name of the country and price of the stamp are not incorporated in the design. Therefore, these are haphazardly written over the design and the stamps look awkward.

Offhand designs, low printing quality lacking finer details and gaudiness are lowering the aesthetic value of the stamps, said experts.

"If you have a good knowledge of using any image editing software in computer you can also be a so-called stamp designer," said Siddiq Mahmudur Rahman, a philatelist and writer of several books on stamps.

"Some philatelists without any knowledge of art and aesthetic sense are doing stamp design," alleged Rahman.

Renowned stamp artist KG Mustafa said, "Unfortunately, many stamps are being designed by some 'cutting-pasting masters' by using images in computers. The gravity, depth and richness of drawings are lost."

Due to inclusion of non-artists in the job the finer sides of arts in stamp designing are lost.

In 1991 I designed a series of stamps on martyred intellectuals using crayon pencil sketch. It created a grey tone in the picture. But from 1993 to 2000 they employed non-artists who used simple black and white photographs of the martyred intellectuals," Mustafa said.

"The authorities do not have the ability to discern the fine line between crayon work and black and white photos. They are happy with that job," he said expressing frustration at the current trend of stamp design.

According to the artists, selection of artists is not transparent and done following some unwritten rules. Competitions are not arranged regularly and senior artists do not want to take part in those competitions with the juniors.

"Unfortunately those selected from competitions are not qualified enough," said renowned stamp designer Dr Manjare

Shamim who was invited by the postal department after winning third place in a competition on World Communications Year arranged by the department in 1983.

He won the second place in another competition on the occasion of 14th Islamic Foreign Ministers Conference in the same year.

"Gradually the designs started to lack creative ideas and seemed to be done in a very offhand and laid-back manner," said Shamim who designed a four-stamp series on butterflies, a three-stamp series on Los Angeles Olympic in 1984 and a two-stamp series on World Peace Year in 1986.

Officials dealing with stamps at the postal department also do not have any idea on stamp designing which discouraged artists in experimenting with new designs, he pointed out.

Aminul Haque Mallick, a listed artist of postal department without any academic background in fine arts, said he had done four designs of stamps and none of them were drawings or paintings.

"I did four designs -- three on Olympic and one on Rotary. I used the image of a bell of Rotary, a combination of the first stamp of Olympic and the photo of the father of Olympic, and repro-

duced from a sketch of marathon to design these stamps. All of the images were set up in computer," said Mallick, working as senior sports reporter of the daily Korotoa and general secretary of Bangladesh National Philatelist Association (BNPA).

Asked about his background in fine arts, Mallick said he used to collect sports stamps and thus gathered experience in stamp designing.

Dr Kazi Shariful Alam, president, BNPA and a professor of Dhaka University's marketing department, said he had done three designs of stamps -- all of them computer-generated.

"Two stamps were on martyred intellectuals which I did in computer using photos supplied by the postal department. Asked whether he had any academic background in fine arts, Dr Alam said he has a good idea of colour combination from collecting stamps. "I did the designs by giving instructions to the computer operator," he said.

"I submitted the designs and those were approved. It proves that non-artists can also do designs like artists and can be their equals," he added.

Anwar Hossain, a listed artist of the postal department and a graduate of fine arts, said that till 2000 he did the designs manually but after that he started using



From left, a postal stamp designed by artist Quamrul Hasan and another one designed with a photograph by a non-artist.

computer graphics since it was a modern technology.

"I know creativity and three-dimensional effects are missing in computer designs but still I use computer because it takes lots of time to draw a picture manually and a very few people understand fine arts these days," he said.

Tayabul Islam, director (stamps), Postal Department, however said, "There are only a few who are doing designs without academic background in fine arts. Most designs are done by artists or the students of fine arts."

Appropriate authorities approve the designs, he claimed. "For an example, the design of the stamps published on the occasion of Beijing Olympic was done by a philatelist. This design was approved by the International Olympic Committee," he said.

Asked how the designs are approved he said they have a primary selection committee. They see the design and do necessary changes. Then the DG gives final approval. If necessary it is shown to the ministry concerned.

About young artists getting priority over senior artists, Islam said, "Of course senior artists do better designs. But senior artists

take lots of time. Sometimes we are given very little time, say 24 hours or 2/3 days. In these cases we go to the young ones as they can do the designs very quickly."

He however admitted that the quality of stamps goes down if they are designed hurriedly.

"We received a few complaints about not commissioning senior artists as many asked why we were not commissioning them. We select artists through competitions where senior artists do not take part," he said.

About the committee that selects and approves designs KG Mustafa and Dr Manjare Shamim said they had been called by the postal department to be a member of the committee but was not given any formal letter.

Asked how artists are enlisted at the postal department for the job of designing stamps Islam said this year enlistment of artists will be done and advertisements will be circulated in the newspaper.

The last enlistment was done in 2002 where 17 people were enlisted. At present around 12 people are enlisted, he said.

"Stamps are vital tools in representing a country in the outside world. So we should be very careful about the designs of stamps and about choosing those who will design the stamps," said Shamim.

Second modern sanitary landfill at Amin Bazar awaits green signal

TELEMUL ALAM

Innovative and environment-friendly techniques will be available at the country's second modern sanitary landfill at Amin Bazar for the proper disposal of half of the capital's solid wastes.

Dhaka City Corporation (DCC) will construct the landfill soon after it gets the green signal from the Executive Committee of the National Economic Council (Necne) meeting, said a DCC official.

Japan Debt Cancellation Fund will fund the Tk 65-crore project, according to the official. The first such landfill, costing Tk 46.63 crore, was inaugurated in October 2007 at Matuail where solid wastes from five out of ten DCC zones are dumped.

Wastes from the rest of the zones will be dumped at the Amin Bazar landfill upon completion of the project.

Tariq Bin Yousuf, project director of DCC's Landfill Improvement Project, told this correspondent last week that since the Matuail landfill is not large enough to serve the remaining five zones of the city, the Conservancy Department of DCC is being compelled to dump solid wastes from these zones at conventional dumping grounds, causing hazards to human health as well as the environment.

According to a study conducted under the solid waste management master plan formulated in 2005 with technical assistance from Japan International Cooperation

Agency (JICA), the total amount of waste that is generated in the city every day is around 3,400 tonnes and almost half of that is dumped at the Matuail landfill.

"With successful completion of the Amin Bazar landfill project, the entire city will come under a system of sanitary landfills," said Tariq adding that the landfill will be constructed on 50 acres of land and it will take two years to finish the project.

To protect the environment from groundwater contamination, soil contamination and air pollution by methane (generated by decaying organic wastes), various systems and facilities including leachate (liquid waste) management, landfill gas management, storm water management, truck weighing scale,

vehicle wash plant and a control centre are installed at modern landfills such as the one at Matuail. These systems will also be installed at the proposed landfill at Amin Bazar.

The overall environment of Dhaka city will improve with the implementation of the Amin Bazar landfill project as biodiversity in and around Amin Bazar will be conserved by taking measures against soil, water and air pollution, Tariq said.

Rubberised landfill liner will be in place to prevent groundwater and soil contamination by seepage of leachates produced from the decomposition of waste within the landfill and the leachates will be treated before they are released into nearby

natural water bodies. Aside from that, a filtering mechanism will reduce the emission of methane -- a greenhouse gas that is far more potent than carbon dioxide.

The special structural design of the landfill will ensure better decomposition of waste with keeping odour at a minimal level. Besides, city dwellers will no longer have to bear with the stench coming out of the garbage trucks as the vehicles will be washed in the on-site wash plant before they roll back onto the city streets.

The operation of the landfill will run for 20 years and after that a public park or a similar amusement facility will be developed over the completed landfill, a DCC official said.