

The level playing field – what about the auto industry?

Nuclear power often faces unfair treatment compared to other sectors. The health consequences of tobacco, alcohol and cars are more serious to the public than the risk from radiation, but nuclear is still the least accepted.

Advocates of nuclear power frequently complain that it faces discriminatory treatment by governments and indeed by society as a whole. For example, regulators impose standards that are substantially above those of other sectors, whilst tax authorities (recently in Belgium, Germany and Sweden) take an unwarranted swipe at the profits of nuclear operators. Nuclear supporters claim that all they want to see is a level playing field, where its attributes can be fairly assessed and then recognised. For example, if the aim is to lower carbon emissions, all low emissions technologies should receive similar treatment without unfair exclusions of nuclear. So if renewable power technologies receive financial incentives, nuclear should also get similar.



Steve Kidd

The cause of nuclear's treatment as a special case is undoubtedly the "paradigm of fear" dominating the industry (see September and October 2015, 'Overcoming the paradigm of fear, Parts 1 and 2'). It is interesting to examine how other industries have coped with the possibility of society and its representative organisations turning against them. For example, the aircraft industry is often compared to nuclear because of the fears some people have about flying. If this became universal, it would threaten the prospects of the aircraft manufacturers and their clients who operate the planes. They have largely managed to avoid this. The source of their success would seem to be the great improvements made in the inherent safety of their products by consolidating plane manufacturing in a small number of dedicated companies (producing highly-standardised products in significant volumes). Then they have encouraged the best operating standards by the airlines. Big accidents have continued to occur, but the risk of taking one's seat on board commercial flights is judged by most people to be acceptable, particularly in comparison with the obvious benefits of regular travel.

The auto industry is another interesting case and one is reminded of this by the scandal that has engulfed Volkswagen. Exhaust emissions of passenger cars have been limited by regulatory action for many years because they are judged to be very harmful to human health. The auto manufacturers have had to go along with this and have produced good technical solutions to remove lead from fuel and lower levels of polluting gases. But now Volkswagen has been found cheating on tests on diesel-powered cars.

Before looking at this case in more detail, it is useful to take a step backwards and consider the auto industry more generally. Back in the early days of Greenpeace, it is said that its leaders considered two industries as possibilities for forming the centrepiece of their campaigns against the ills of the modern world. One was nuclear power and the other was autos. In the end (no doubt very wisely) they chose nuclear power as an easier target. The clinching argument was that although there are lots of bad things about the auto industry (and particularly its products) people rather like their cars and the benefits these bring to them. Although there are alternatives (public transport) they don't provide the same degree of freedom and mobility. Nuclear

power, on the other hand, is only producing billions of kilowatt hours of electricity. This is certainly not a "sexy" product, as people don't care much about electricity (unless there's a power cut) beyond trying to minimise their bills. There are lots of different ways of generating power and if the antis are successful in killing off just one of these, nobody should suffer much as there are good alternatives available.

Stepping back further, we could envisage a world in which the private car has not been invented and people are getting around on foot and by public transport. If cars were suddenly invented today, would they be allowed, given the level of scrutiny that society now imposes on any innovations? This is very doubtful.

Any new product that will lead to the deaths of thousands of people each year in accidents is going to be a very tough sell. This creates a huge amount of human misery, not to speak of the significant economic costs.

Less obvious are the impacts of the exhaust emissions. A lot of focus in recent years has been placed on the link between carbon emissions and climate change, and the transportation sector is as important in this as is power generation. But of more immediate and direct impact on human health are the emissions from cars of the oxides of nitrogen. How bad they are is the subject of some debate (rather like that surrounding low doses of radiation) but despite stringent emissions standards, it is certain that many thousands of people around the world are still suffering premature death because of them. The air in Los Angeles and other cities may be a lot cleaner than it used to be, but people are still dying early and the pollution problem is spreading to the cities of the developing world as they catch automania.

Other arguments that can be used against the auto industry include the costs of traffic congestion in cities and resource sustainability. Public transport has many advantages in moving people from A to B in urban areas, so the use of private cars is now actively discouraged. In the developing world, however, it is almost impossible to keep up with the rapid expansion of car ownership. Once families get their first car, they are almost certainly going to use it heavily and may easily forget the obvious alternatives. Finally, there are obvious concerns about the sustainability credentials of the global auto industry. Although the recycling of old cars is a big business in itself, switching people from public transport to private cars certainly does not fit in well with sustainable development principles.

So if private cars were invented today, they would probably be banned. To be fair this is not so different to other products we are very familiar with. Tobacco and alcohol might still be allowed by the regulatory authorities if they had just been invented, but it is certain that they would be controlled much more strictly than they are today. They would likely be treated more like controlled drugs such as marijuana. At the very least, they would be taxed even more heavily or the places in which they could be consumed more strictly controlled.

It may be illogical that all around us we have familiar products

with substantial adverse impacts on human life, but their use is well-established and for most people the benefits outweigh the obvious downsides. They will put up with the risk of being killed or seriously injured in a car accident for the freedom and mobility which a car confers. Nuclear power, on the other hand, has not been able to establish itself so strongly in the public consciousness as a “good thing” and suffers from the paradigm of fear.

It is interesting to see which of the consequences of the Volkswagen scandal have been picked up by the media. The impact on Volkswagen itself and its employees and shareholders is one. The share price has fallen sharply. Jobs may also be at risk. The company may have to pay large fines of billions of dollars and face class actions in the courts from car buyers who are claiming redress. It also will be very costly to recall millions of cars already sold and already in use on the roads to have them fixed to some new standard. Another issue is potential damage to the residual values of cars already on the road. Are they really safe to drive and will it still be possible to sell them for a good price once the motorist wants a new car?

Have other manufacturers been cheating the emissions tests too? The effectiveness of the testing regimes has been brought into question and also the substantial differences between Europe and the USA. And there are some potentially bigger questions, such as whether the future of diesel cars is now in doubt. Many people in Europe had become convinced that they are friendlier to the environment than petrol cars, something which has always been highly questionable. The common view in the USA, for example, is that the precise opposite is actually the case.

Somewhere in the background of all the comment and debate is the fact that by cheating on emissions tests, the level of emissions of harmful substances from Volkswagen cars has been rather higher than what was previously thought. So some people have undoubtedly died rather earlier than they would have otherwise. There will be many estimates of the numbers over the coming months. But the number of deaths will certainly not be zero. This contrasts starkly with the zero who are likely to die prematurely because of the higher radiation levels caused by the Fukushima accident.

Fukushima is regarded as a disaster partly because of the wider impact of the earthquake and tsunami but also because of the degree of dislocation to human lives from the evacuations, the confusion and errors made at the plant and the substantial economic consequences. Yet the Volkswagen scandal is much more of a disaster for human health. It is true that many fewer people than before are now dying prematurely owing to emissions from car exhausts, but the numbers are still substantial.

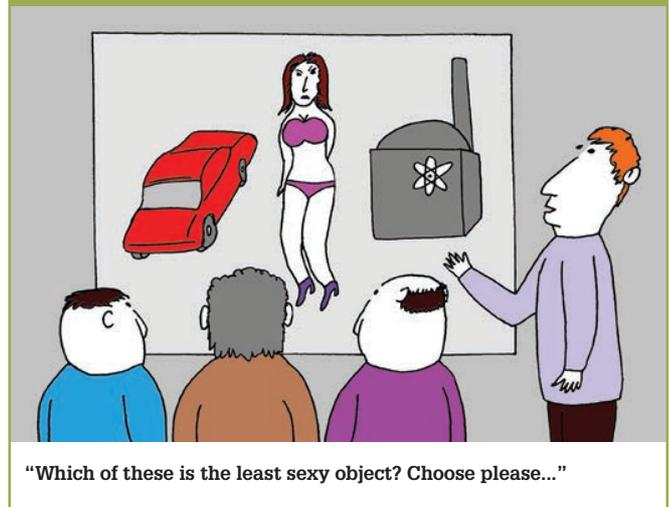
This is where the nuclear sector is entitled to expect more of a level playing field. Respected studies show that the environmental consequences of its operations are trivial compared with the auto industry and the use of tobacco or alcohol. But it has struggled to get people to appreciate this. The public is very unforgiving of any industry of which it is fearful and any adverse consequences of its operations get jumped upon very heavily. Regulators who impose even stricter standards are then praised for helping ensure public safety.

The appeal for a level playing field must continue but the nuclear sector has to do much more to help itself. With a product that does not excite the general public this has to be seen as a very long-term job. It may be possible, over the long term, to get nuclear kilowatt hours to be seen as superior to other kilowatt hours for environmental reasons.

Steve Kidd is an independent nuclear consultant and economist with East Cliff Consulting. The first half of his career was spent as an industrial economist within British industry, followed by nearly 18 years in senior positions at the World Nuclear Association and its predecessor organisation, the Uranium Institute.

The Unit

Alexey Kovynnev



But nuclear power’s big selling point has to be that it offers huge, very cheap and secure supplies of electricity.

It must convince the general public and the regulators who protect them that this is possible without harming the environment or risking human lives. Pointing out the weaknesses of other industries in this regard can be only a small part of the campaign for fair treatment. Nuclear is a long way behind after Fukushima and it must now strive to close the gap. ■

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