Lancaster Diocese Faith & Justice Commission		
Question	**Agree**	**Response**
1 – Geology	No	Geological storage does appear to be the only possible long term way forward. We have a number of concerns. We believe that it is the UK Government that should be taking responsibility for the nature and location of a nuclear repository for the nation because it is the safety of future generations of Britons, and neighbouring countries, which should be the overriding factor. It is not clear from the West Cumbria consultation document whether they are planning a store or a disposal site. They are two very different engineering proposals. Disposal - once sealed they could not readily be retrieved. Storage - involves the construction of an engineered, watertight, vault deep in the rocks - but capable of being monitored to detect both radiation levels and any water entry, and allowing intervention should this become necessary. We emphasise that apparent convenience (eg proximity to Sellafield) should not be allowed to compromise a decision which must involve the whole system over its whole life cycle (insofar as that is humanly possible). There has been no thorough geological survey done throughout the UK that would enable an informed decision on where the best site for geological disposal would be. The planned Geological Survey in the 70's was cancelled after only two sites were surveyed –this appeared to be due to public (electorate) concerns. There are different opinions as to which geological make-up would provide the best/safest place to site a repository. The screening out of shallow aquifers (supplying drinking water/surface water) and deep waters in limestones that feed warm springs at the surface are obvious. But the screening of mineral resources at depth - seems to have been divided arbitrarily: so carbon resources are acceptable for screening out (on the assumption that future generations may still be deep mining for coal, gas, oil), while other mineral resources (evaporites, industrial minerals, some metal ores) are not. This pre-supposes that future generations might not wish to exploit, by deep mining, resources for which there is currently no great demand; or to over-exploit resource which are currently regarded as having a wide distribution, or 'low resource value'. This then leaves all other criteria (geological/tectonic stability; deep aquifers; complex geological environments..) being regarded as insufficient as pre-screening criteria.

		One (Bath et al, 2006) reports investigations of deep groundwater compositions in the Sellafield area. While the idea may be to 'seal' a repository deep below the fresh-water aquifer, since there are plenty of deep saline fluids around, such a project would have to ensure that the potential thermal effects of the repository, and the disturbance to the rock permeability around the repository, would not allow warm brines to rise into the overlying aquifer on geological timescales. The fact that waste needs to be stored safe from human attack or a reduction in the integrity of the geological site over many hundreds of years poses a great challenge to any regulatory system. For example, there can be no direct scientific evidence that the containing vessels will be free from corrosion over the necessary timescale. We urge therefore that the precautionary principle should always be invoked in matters of site selection and design. The overriding objective must surely be to identify the site which is most likely to lead to the well-being of future generations. Whether the Sellafield area, some other part of West Cumbria, or any other particular location in the UK is suitable for such a store can only be decided by rigorous scientific examination of the geology and hydrology. While public acceptance is desirable the imperative is environmental suitability. A bad site remains a bad site even if it has willing neighbours. A good site will be safe, whoever lives on top of it!
2 – Safety, security, environment and planning	No	In the community consultation and the planning a distinction should be made between legacy waste and new build waste. Volunteer communities should be asked a set of questions that distinguishes between legacy and new build waste. Volunteer communities should have the opportunity to accept legacy and reject new build. If a volunteer community agrees to a geological disposal facility to legacy waste only that would mean a second facility if the government continued with plans for new nuclear power stations. (The cost of this second disposal facility should be included in proposed builds –not an automatic assumption that the waste produced can be dealt with alongside the legacy waste) We believe there should be no new build until science has developed a sustainable, safe way forward. It is crucial to consider the whole system of treatment, intermediate storage, transport and deposition from the outset – a bit-by-bit design won't do. This necessarily implies that a wide range of communities must be consulted and involved if there is ever to be public confidence in the system of waste management. It also implies an unprecedented level of collaboration between the regulatory bodies. Regulation – the biggest problems come from the need for the closest collaboration at every level of the different regulatory bodies and the constraints on the availability of information which are a result of confidentiality and security concerns – this is very dangerous and not good for public trust. It is clear that the risk of terrorist attack on part of the waste treatment and disposal chain is more likely to increase rather than decrease over the next decades. At the same time decision makers should be fully aware that it is difficult for the public to have confidence in the robustness of a system in which information is not forthcoming because of security reasons. See, for example, the report from the Parliamentary Office of Science & Technology

		(2004) on terrorist attacks: how can people really believe that the conclusions of a study of the impact of an accident are wrong simply on the basis of a statement by the operating company that “none of the authors have access to current information necessary to undertake a credible study”. We strongly urge that the process should be as transparent as possible, given the circumstances, and that ways are sought to involve all genuinely interested parties. The details of transport arrangements should be made public. We believe that communities on either rail or road links in the transport system should be made fully aware of the implications, and that their views should be expressly sought in the consultation. There is no doubt that the psychological effect on the public of any nuclear-related accident or incident would be enormous – so while assurances about the levels of risk and their consequences may be realistic in scientific terms, this doesn’t mean that the public will therefore be convinced or reassured. The fact that waste needs to be stored safe from human attack or a reduction in the integrity of the geological site over many hundreds of years poses a great challenge to any regulatory system. For example, there can be no direct scientific evidence that the containing vessels will be free from corrosion over the necessary timescale. We urge therefore that the precautionary principle should always be invoked in matters of site selection and design. The overriding objective must surely be to identify the site which is most likely to lead to the well-being of future generations.
3 – Impacts	No	Time scale of 140 years for the development of the facility and during this period average employment of 550 people per year is not going to increase employment chances, and legally jobs cannot be set aside for local people It will not increase the likelihood of investment from other industries other than in arms and nuclear industries. For a long period the effects of construction will have a detrimental affect on Cumbria. There is no doubt that the psychological effect on the public of any nuclear-related accident or incident would be enormous – so while assurances about the levels of risk and their consequences may be realistic in scientific terms, this doesn’t mean that the public will therefore be convinced or reassured. There would be a big impact on the tourism industry and this would have an effect on the food industry as the tourist often provides an essential second business for the farming community.
4 – Community benefits	Not Sure/ Partly	We can have no knowledge to what the Government might agree to, and what they might describe as “community benefits” so far in advance and whether these would be seen as such by the community. The definition of community is absolutely critical. The facility is not a stand alone site – it will be part of the national system and people affected (eg at key transport links) should be given a say in the process.

		We are also concerned that communities which are relatively poor economically are given a balanced and realistic picture of the true costs, benefits and risks to them, particularly if they see it as a way to finance development and to bring employment to their area.
5 – Design and engineering	No	We agree that geological storage does appear to be the only possible long term way forward. It is not clear from the West Cumbria consultation document whether they are planning a store or a disposal site and these are two distinctive engineering proposals. We are concerned that it is inferred in the document that the facility is designed to take waste from new build as well as legacy nuclear build. BUT a distinction should be made between legacy waste and new build waste. The current problem is the waste from nuclear facilities built since 1950; this could all be in the geological disposal it is suggested by 2130. The plans to build new nuclear facilities will create more waste after their maximum 60 year productive life. Proposed build from 2018 so by about 2080 a further waste inventory will be created before the initial inventory has been completely dealt with. As such we believe that volunteer communities should be asked the question that distinguishes between legacy and new build waste. If a volunteer community agrees to a geological disposal facility to legacy waste only that would mean a second facility. The cost of consultation, planning and building of the second site should fall wholly on companies that build new nuclear power stations. We believe there should be no new build until science has developed a sustainable, safe way forward.
6 – Inventory	Not Sure/ Partly	We agree with the types of waste that could be sent for geological disposal. But there is no distinction between legacy waste and new build waste. There is no information on the plans to deal with LLW in the future in Cumbria as the facility at Drigg in becoming close to capacity.
7 – Siting process	No	It is important to keep the community informed about the process and possibilities. Community acceptance of any possible repository site is, the imperative is its environmental suitability for thousands of years to come. BUT We believe that it is the UK Government that should be seen to be taking responsibility for the nature and location of a nuclear repository for the nation because it is the safety of future generations of Britons, and neighbouring countries, which should be the overriding factor.

		A bad site remains a bad site even if it currently has a willing community, while a good site will be safe effectively forever, whoever lives on top of it!
8 – Overall views on participation		See response to Q.7
9 – Additional comments		Our concern, along with many others, is for the protection both of people within the area, however wide this has to be defined, and of the countryside. Our desire to protect these is driven by our belief that life as represented by humanity and all fauna as well as flora, together with all of the created world is a gift given to us by God which we have a duty to preserve. In a similar way it is a gift we are invited to enjoy and enable those who come after us to enjoy as well. Whatever permanently damages humanity and the wider creation is something that we should always avoid. The questions we would have therefore are whether what is going to be done, does do permanent damage, and whether there is a not a better way of approaching how we deal with the nuclear waste. This may mean that we have to wait until we are able to answer these questions more effectively. Another area that raises concern is that various departments at Universities (Lancaster for one) and elsewhere are looking into the use of radioactive waste. It seems unlikely that all will be recyclable, but some may be. If we are to face the question of what we do with the waste that we already have, we need to be working closely with these departments so that should recycling become possible then the waste is as available as possible. However we believe that this research is at an early stage and so we should not stock-pile more waste from new build hoping for this research to deal with the problem. The waste we have now has to be dealt with. Just because West Cumbria is a poor county with a lack of industry, it should not be tempted into to being evaluated in isolation as a possible site. Any investigation into the geology should be part of a wider investigation of other potential sites of appropriate geology in the country, including deep clay formations