

Comments and Responses Summary: Koeberg Transient Interim Storage Facility (TISF)

The Comments and Responses Summary provided below reflects stakeholder comments received by SRK in response to the Background Information Document (BID) released to the public in October 2015, the (pre-application) Draft Scoping Report (DSR) released to the public in March 2016, and the (formal process) Scoping Report (SR) released to the public in July 2016 after the commencement of the formal NEMA EIA process.

Please note that the key issues (rather than the full comments by stakeholders) have been captured in the table. Full copies of all written comments received during the Scoping Phase are included in Appendix M. Not all issues captured are based on written comments received; some arose from discussions with stakeholders at the Public Open Days (held on 27 October 2015 and 21 July 2016) or from authorities at the authorities' focus group meetings on 20 November 2015, 26 January and 27 July 2016. Responses to issues captured in the table are provided by SRK and/or Eskom.

Issues are grouped as per the following general themes in the Comments and Responses Summary Table:

- A. Project Motivation and Background
- B. Project Description
- C. Clarification of Project Description in Draft Scoping Report
- D. Alternatives
- E. Potential Impacts, Risks and Safety Concerns of the Project
- F. Cumulative Impacts
- G. Current Operations
- H. The EIA Process
- I. Regulatory Requirements
- J. General

Abbreviations used in the Comments and Responses Summary

AADD	Annual Average Daily Demand
BID	Background Information Document
CISF	Central Interim Storage Facility
CoCT	City of Cape Town
CSB	Cask Storage Building
DEA	Department of Environmental Affairs (National)
DEA&DP	Department of Environmental Affairs and Development Planning (Western Cape)
DSR	Draft Scoping Report
DWS	Department of Water and Sanitation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ERP	Emergency Response Plan
HWC	Heritage Western Cape
ISI	In Service Inspection
KNPS	Koeberg Nuclear Power Station
LNG	Liquefied Natural Gas
NEMA	National Environmental Management Act 107 of 1998
NEM:PAA	National Environmental Management: Protected Areas Act 57 of 2003
NHRA	National Heritage Resources Act 25 of 1999
NID	Notice of Intent to Develop
NNR	National Nuclear Regulator

NWA	National Water Act 36 of 1998
POS	Plan of Study
SFP	Spent Fuel Pool
SR	Scoping Report
TISF	Transient Interim Storage Facility
WCG	Western Cape Government

Written comments were received from a number of stakeholders, as listed in Table 1.

Table 1: Written comments from Stakeholders (October 2015 – August 2016)

#	Stakeholder	Affiliation	Comment received
Background Information Document			
1.	Bettie Leedo	City of Cape Town (CoCT), Environmental Health: Western District	9/10/2015
2.	Jan Norman	Private	9/10/2015
3.	SM La Grange	Chairperson: Melkbosstrand Ratepayers Association	12/10/2015
4.	Oloff Dreyer	Melkbosstrand Private School	16/10/2015
5.	Ryno van der Riet	Private	20/10/2015
6.	Tug Wilson	Private	27/10/2015
7.	Graham Arbuckle	Private	27/10/2015
8.	Graham Arbuckle	Private	28/10/2015
9.	Rhett Smart	CapeNature	9/11/2015
10.	Pat Titmuss	CoCT, Regional Manager: Environmental and Heritage Management: Northern Region (Blaauwberg District)	9/11/2015
Draft Scoping Report (pre-application)			
11.	Trevor Moodley	Eskom Quality Control Inspector	18/03/2016
12.	Mike Thurgood	Private	18/03/2016
13.	Salome Mambane	DEA: Environmental Officer: Integrated Environmental Authorisations	05/04/2016
14.	Alvin Cope	Western Cape Government, Road Network Management	06/04/2016
15.	G Paulse	Western Cape Government	13/04/2016
16.	Morné Theron	CoCT: Environmental Resources Management	25/04/2016
17.	Melanese Schippers	DEA&DP Directorate: Development Management	25/04/2016
18.	Muneeb Baderoon	DEA&DP Directorate: Waste Management	25/04/2016
19.	Peter Harmse	DEA&DP Directorate: Air Quality Management	25/04/2016
20.	Zayed Brown	DEA&DP Directorate: Pollution and Chemicals Management	25/04/2016
Scoping Report (formal process)			
21.	Trevor Moodley	Eskom Quality Control Inspector	08/07/2016
22.	SM La Grange	Chairperson: Melkbosstrand Ratepayers Association	11/07/2016
23.	Alvin Cope	Western Cape Government, Road Network Management	12/07/2016
24.	Melanese Schippers	DEA&DP Directorate: Development Management	08/08/2016
25.	Adri la Meyer	DEA&DP Directorate: Development Facilitation	08/08/2016
26.	Morné Theron	CoCT: Environmental Resources Management	08/08/2016
27.	Portia Makitla	DEA: Integrated Environmental Authorisations	19/08/2016 (received after submission of SR)

A number of verbal comments were received from stakeholders, as listed in Table 2.

Table 2: Verbal comments from stakeholders (October 2015 – August 2016)

#	Stakeholder	Affiliation
Public Open Day: 27 October 2015		
1.	Robert Mayhew	Private
2.	Graham Arbuckle	Private
Telephone Call: 23 November 2015		
3.	A.M. Neethling	Private
Authorities' Focus Group Meeting: 26 January 2016		
4.	Morné Theron	CoCT: Environmental Resources Management
5.	Russell Mehl	DEA&DP: Pollution Management
6.	Ian Gildenhuis	CoCT: City Health
7.	Zayed Brown	DEA&DP: Pollution Management
Authorities' Focus Group Meeting: 27 July 2016		
8.	Thorsten Aab	DEA&DP: Waste Management
9.	Ian Gildenhuis	CoCT: City Health
10.	Adri la Meyer	DEA&DP: Development Facilitation

Comments and Responses Summary: Koeberg TISF

No	Issues	Document ¹	Stakeholder	Response
A. Project Motivation and Background				
1.	Used nuclear fuel should not be stored in such close proximity to a residential suburb.	Background Information Document (BID)	Jan Norman, private Graham Arbuckle, private	The potential impact of the TISF on human health of the communities surrounding KNPS were identified and assessed by a Human Health Specialist (refer to Section 6.6 and Appendix I of the Environmental Impact Assessment Report [EIA Report]). A Radiological Assessment was commissioned by Eskom prior to commencement of the EIA. The findings of the Radiological Assessment informed the Human Health Impact Assessment. In order to meet the independence requirements as stipulated in the EIA Regulations, 2014, an independent review of the Radiological Assessment was undertaken to inform the EIA process and ensure compliance with national legislation and international best practice (refer to Appendix N of the EIA Report).
2.	Why is the CISF assumed to be unavailable for use by 2025?	BID	Bettie Leedo, CoCT	The Radioactive Waste Management Policy and Strategy for the Republic of South Africa (2005) states that Government is responsible for investigating long-term options for the “safe management of used fuel and high level radioactive waste in South Africa” including the option of a Central Interim Storage Facility (CISF). The CISF is a proposed central storage facility for used nuclear fuel and waste, to be established by the National Radioactive Waste Disposal Institute. Due to the uncertainty regarding the development of the CISF, only likely to be in operation after 2025, it has become imperative for Eskom to investigate interim options for the storage of used fuel on the KNPS site. Additional storage capacity will be required to accommodate any further used fuel generated at KNPS. Once (if and when) the CISF is constructed, the dry storage casks will be transported from the TISF to the CISF for long term storage/disposal. Additional motivation for the development of the TISF is provided in Section 3.2 of the EIA Report.
3.	Why is the CISF not in place?	BID	Graham Arbuckle, private	
4.	If more nuclear stations are to be built, a central repository is more feasible.	BID	“Tug” Wilson, private	
5.	Due to the construction of the TISF, the political will to pursue the construction of a permanent storage solution will become diffused. The approval of construction of the TISF should be conditional on a commitment to build a permanent storage/reprocessing facility at a site elsewhere.	BID	Graham Arbuckle, private	
6.	Could the TISF potentially become permanent, until the end of Koeberg’s operating life? What if the CISF is not built?	BID	Morné Theron, CoCT	
		SR	Thorsten Aab, DEA&DP	
7.	Why build the TISF? Why not go straight to the CISF?	SR	Thorsten Aab, DEA&DP	

¹ Public document in response to which comments were made.

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8.	If KNPS has been operating since 1984, and with the plans to build additional nuclear reactors in South Africa, why has the CISF not been established yet?	SR	Thorsten Aab, DEA&DP	
9.	Due to the lack of any existing permanent storage solutions, will the TISF will be used for waste from other Nuclear Power Stations, including those proposed at Duynefontein and Thuyspunt, which would also need temporary used fuel storage until the CISF has been established?	BID	Graham Arbuckle, private Zayed Brown, CoCT	The TISF will only store used fuel generated at the existing KNPS site. Any new facility would need to make allowance for the temporary storage of used fuel produced by the facility until the establishment of the CISF. For new nuclear reactors, the Spent Fuel Pools (SFPs) only have capacity to store used fuel for 10 years. It is however anticipated that the new facility may only be established around 2025, approximately the same time that the CISF is due to be established.
		DSR	Mike Thurgood, private	
		SR	Ian Gildenhuys, CoCT	
10.	Why is used fuel not being stored at Vaalputs?	BID	“Tug” Wilson, private	Vaalputs is the national nuclear waste disposal site for low and intermediate level waste. There is currently no national nuclear waste disposal site for high level waste.
			Robert Mayhew, private	
			A.M. Neethling, private	
		Zayed Brown, DEA&DP		
SR	Thorsten Aab, DEA&DP			
11.	Potentially harmful radioactive materials should not be stored on site at KNPS in quantities higher than originally planned for by the design of KNPS.	BID	Graham Arbuckle, private	Due to the uncertainty regarding the development of the CISF, it has become imperative for Eskom to investigate interim options for the storage of used fuel on the KNPS site. Additional storage capacity will be required to accommodate any further used fuel generated at KNPS.
12.	Used fuel should not be stored on site as the site is optimized for power plant operation, not nuclear waste storage.	BID	Graham Arbuckle, private	Eskom has a comprehensive Emergency Response Plan (ERP) for KNPS. The ERP will be reviewed and revised to incorporate emergency response procedures associated with the TISF. In the case of the TISF, there is very unlikely to be a scenario of severe damage to (KNPS and) the used fuel casks that would generate a radiation plume exceeding the plume from the (simultaneously damaged) reactor units or from the SFP. A detailed analysis of possible scenarios that may lead to radiological releases has been assessed in the Probabilistic Safety Assessment which has been commissioned by Eskom, which will inform the review of the KNPS ERP. A Radiological Assessment, commissioned by Eskom, assessed the potential radiation impacts of the TISF on Eskom employees and surrounding communities. (See

No	Issues	Document ¹	Stakeholder	Response
				<p>response to comment 1 above).</p> <p>Radiation risks associated with the TISF, and appropriate emergency response, will be evaluated in greater detail by the National Nuclear Regulator (NNR), who will need to be assured that these matters are correctly addressed prior to authorising the TISF.</p>
B. Project Description				
13.	For how long will the used fuel be stored on site? With the lack of any existing permanent storage solutions, would this not continue up to and beyond the operating life of KNPS?	BID	<p>Bettie Leedo, CoCT</p> <p>Graham Arbuckle, private</p>	<p>The strategy for storage of used fuel at the TISF assumes that the planned CISF will not be commissioned earlier than 2025. However, due to the uncertainty around the development of the CISF, the TISF may be required through to the end of the expected operational life of KNPS. Once the CISF is constructed, the dry storage casks will be incrementally transported from the TISF to the CISF for long term storage/disposal.</p>
14.	In terms of storage of used fuel in the TISF, how long is temporary?	SR	Thorsten Aab, DEA&DP	
15.	How would casks be transported?	BID	<p>“Tug” Wilson, private</p> <p>Robert Mayhew, private</p>	<p>The dry storage casks will be transferred from the fuel buildings to the TISF on the existing KNPS internal road network and a new site access road on a specially designed vehicle. The sequence of loading one dry storage cask at the fuel building and transferring the cask to the TISF will take approximately 10 working days.</p> <p>The dry storage casks will be transported by road from the TISF to the CISF for long term storage/disposal.</p>
16.	Are the storage casks safe to fly?	BID	“Tug” Wilson, private	Eskom is not planning to transport the casks by air.
17.	What procedure will be followed if a cask must be moved or removed from the TISF?	SR	Thorsten Aab, DEA&DP	The same procedure that will be used to place the casks in the TISF. The TISF ancillary building will house the necessary cask moving equipment.
18.	The stockpiling of used fuel at Koeberg will increase the potential “source term” while at the same time the population is increasing in the emergency planning zone (16km) and getting closer to Koeberg. A large shopping mall (R1,9 Billion) is under construction within the zone and only 12km from Koeberg.	BID	<p>“Tug” Wilson, private</p> <p>Robert Mayhew, private</p>	<p>Eskom has a comprehensive Emergency Response Plan (ERP) for KNPS. The ERP will be reviewed and revised to incorporate emergency response procedures associated with the TISF. In the case of the TISF, there is very unlikely to be a scenario of severe damage to (KNPS and) the used fuel casks that would generate a radiation plume exceeding the plume from the (simultaneously damaged) reactor units or from the SFP. A detailed analysis of possible scenarios that may lead to radiological releases will be assessed in the Probabilistic Safety Assessment which has been commissioned by Eskom. The Probabilistic Safety Assessment will also inform the review of the KNPS ERP.</p> <p>A Radiological Assessment, commissioned by Eskom, assessed the potential radiation impacts of the TISF on Eskom employees and surrounding communities. An independent review of the Radiological Assessment was undertaken to inform the EIA process and ensure compliance with national legislation and international best practice (refer to Appendix N of the EIA Report).</p> <p>Radiation risks associated with the TISF, and appropriate emergency response, will be</p>

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				evaluated in greater detail by the NNR, who will need to be assured that these matters are correctly addressed prior to authorising the TISF.
19.	The Koeberg Emergency Plan contains strict guidelines with respect to source term, emergency planning zones, low population zone, owner-controlled area, etc. Is Koeberg not already in conflict with the original licence?	BID	“Tug” Wilson, private	<p>The requirements for Emergency Preparedness and Response are specified in licence documentation such as NIL-001 “Nuclear Installation Licence”, RD-0014 “Emergency Preparedness and Response Requirements for Nuclear Installations” and the Koeberg Safety Analysis Report. Some key pertinent points with respect to the question posed are the requirement to be able to evacuate the 5 km zone within 4 hours and the 16 km zone within 16 hours. These Emergency Preparedness and Response criteria were reviewed following the Fukushima Daiichi accident and were determined to still be appropriate (“Re-assessment of Koeberg EP Technical Basis and EP Zone Sizes”, R1617R1, Eskom, 2012). This review considered the potential radioactive releases from multi-unit accidents and the spent fuel pool accidents. The potential releases from used fuel storage casks has also been assessed and has no impact on the ability to implement emergency actions since any releases from the casks are orders of magnitude less than that possible from the reactors and the spent fuel pools on which the Emergency Preparedness and Response requirements are based.</p> <p>The ability to meet these Emergency Preparedness and Response requirements depends upon disaster management resources both in terms of equipment and personnel. Although some challenges were experienced within the recent annual Emergency Preparedness and Response exercise; the evacuation times and source terms used were not questioned.</p> <p>Further, a technical assessment was recently performed which indicates that the 5 km zone can indeed be evacuated within 4 hours and the 16 km zone within 16 hours for the predicted growth in local developments (housing and roads) that will occur while Koeberg operates (“Report on the update of the 2006 KNPS Traffic Evacuation Model”, COC, 2012). All proposed developments within 16 km of KNPS undergo a similar assessment.</p>
20.	Will the new casks be the same as the existing casks?	BID	Morné Theron, CoCT	The existing casks are metal casks. The nature of the new casks will depend on the tender process, but all casks will comply with the relevant NNR regulations and specifications.
21.	Will fuel assemblies be encapsulated in metal containers?	BID	Zayed Brown, DEA&DP	
22.	How long will it take to construct the concrete slab?	BID	Morné Theron, CoCT	The TISF facility would be required in 2019, and construction will take 12 months, so construction is scheduled to commence in 2018. This allows sufficient time for the EIA process to be completed.
23.	What is the construction lead time?			
24.	Are there different design requirements for a temporary storage facility and a permanent facility?	BID	Russell Mehl, DEA&DP	A permanent facility (such as a CISF) would require a building with thick walls and a thick concrete slab, while a temporary structure requires only a thick concrete slab. A permanent structure cannot be authorised under KNPS’ current licence from the NNR.

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				Therefore a temporary storage facility is proposed at KNPS for which the existing licence can be amended.
25.	Will the TISF remain uncovered (without a roof structure)?	BID	Morné Theron, CoCT	Yes, the TISF will remain uncovered. An unenclosed concrete slab (on which the casks are positioned) is safer as it allows for effective heat exchange and cooling of the individual casks. In case of an emergency situation (e.g. a tsunami event) a building (with a roof structure) could collapse thus preventing adequate heat exchange of the casks. A building able to withstand a tsunami event would be extremely expensive to construct. Eskom cannot afford such a structure at present, and if constructed it could become a permanent facility. The licence issued by the NNR would be valid for a storage period of 5 years, thereafter Eskom would need to re-apply, at which stage the NNR would re-assess the safety case.
26.	The waste management hierarchy (reduction, re-use and recycling of waste) must be implemented to ensure that the disposal of waste should only be considered as a last resort. All waste must be correctly stored, handled and disposed of depending on whether it is classified as hazardous or non-hazardous.	DSR	Muneeb Baderoon, DEA&DP	All non-radioactive or general waste generated during the construction and operational phases of the TISF project, which cannot be reused or recycled, will be disposed of at a licensed municipal facility. Construction waste classified as hazardous (as per Category A, Section 15 of Schedule 3 of the National Environmental Management: Waste Act, 2008) generated during the construction and operational phases of the TISF project will be temporarily stored in a designated hazardous waste container or skip until final disposal at a licensed hazardous facility (i.e. Vissershok site). General waste and the non-hazardous portion of construction waste generated by TISF project will be stored on site and disposed of separately.
27.	Will future building plans affect the on-site location of the TISF?	SR	Trevor Moodley, Eskom	The TISF location has taken priority over future on-site building plans.
28.	The ideal location of the TISF would be Alternative 1, which is adjacent to the low level waste area.	SR	Trevor Moodley, Eskom	Noted.
29.	Will an additional road be created for access to the TISF so that the TISF does not interfere with the operations of KNPS and the current layout of the plant? This additional road could be considered as an alternative evacuation route.	SR	Trevor Moodley, Eskom	The existing KNPS internal road network will be used to transfer casks from the SFP to the TISF. Casking operations will occur outside the outage / maintenance periods and will therefore not adversely interfere with the operations of KNPS.
C. Clarification of Project Description in Draft Scoping Report				
30.	Clarity with respect to the width of the access road to the entrance of site alternative 1 must be provided in order to determine whether Activity 4 of GN. No. R985 of 4 December 2014 is applicable to the proposed	DSR	Melanese Schippers, DEA&DP	The existing access road to be resurfaced at the entrance to site alternative 1 will be more than 4 m but less than 8 m in width. This information was included in the Scoping Report released for public comment in July 2016 following commencement of the formal Application process.

No	Issues	Document ¹	Stakeholder	Response
	development.			It is important to note a new section of road will not be constructed but rather a portion of existing gravel road with dimensions (6m width and 20m length) will be surfaced / tarred to connect the existing haul road to the TISF at the entrance to Alternative 1. This section of gravel road to be upgraded is already disturbed and therefore does not contain any indigenous vegetation and therefore does not constitute an additional Listed Activity 4 in terms of the 2014 EIA Regulations.
31.	The detailed activity description included in the EIAR must include, inter alia, a description of the associated infrastructure (e.g. width of the road to be constructed), water demands (i.e. Annual Average Daily Demand (AADD), peak week average daily demand) and electricity requirements for the proposed development.	DSR	Melanese Schippers, DEA&DP Morné Theron, CoCT	A description of the associated infrastructure, and water and electricity demands are provided in Section 3.5 of the EIA Report. Although water and electricity demands cannot be accurately determined that this stage, they are likely to be low.
32.	Potential confusion could arise between the reference to the Koeberg Nuclear Power Station Protected Area and the protected area status that Koeberg Nature Reserve has in terms of the National Environmental Management: Protected Areas Act (Act 57 of 2003) (NEM:PAA).	DSR	Rhett Smart, CapeNature	Although KNPS site does fall within the Koeberg Nature Reserve, which is classified as protected in terms of National Environmental Management: Protected Areas Act (NEM:PAA), the TISF site will be situated within the Development Zone - Noxious Industry. In terms of the Koeberg's Standard Security requirements for Nuclear Power Stations, part of this Development Zone-Noxious Industry is also referred to as a "Protected Area" but has no relevance to any biodiversity / ecological aspects. This distinction has been made in the Scoping and EIA Reports, where the KNPS "Protected Area" is referred to as the KNPS "Security Protected Area".
33.	The high-water mark indicated in Figure 3-5 of the pre-application Scoping Report appears to depict the low-water mark of the sea.	DSR	Melanese Schippers, DEA&DP	The high-water mark in relation to Alternative 1 was delineated in the Scoping Report (Figure 3-5) released for public comment in July 2016 following commencement of the formal Application process.
D. Alternatives to Disposal of Used Nuclear Fuel				
34.	Has Eskom considered reprocessing and the financial cost of reprocessing compared to the cost to the environment/humans? If there is fuel left in the used rods it should be utilised so that we do not deplete the earth of minerals.	BID	Robert Mayhew, private	The Radioactive Waste Management Policy and Strategy for the Republic of South Africa (2005) establishes a national radioactive waste policy framework setting out the principles and structures for the management of radioactive waste in a coordinated and cooperative manner. The Policy states that Government is responsible for ensuring that investigations are conducted within set timeframes to consider the various options for safe management of used fuel and high level radioactive waste in South Africa including the reprocessing, conditioning and recycling of used fuel.
35.	Why has no contingency plan been put in place to recycle or reprocess used fuel?	BID	Zayed Brown, DEA&DP	Reprocessing is a future option and is not feasible at present.
36.	Why isn't used nuclear fuel reprocessed?	SR	Thorsten Aab, DEA&DP	
E. Potential Impacts, Risks and Safety Concerns of the Project				
37.	The proposed activities could impact on coastal processes	BID, DSR	Rhett Smart,	The TISF will be located within the Security Protected Area of KNPS, a flat area

No	Issues	Document ¹	Stakeholder	Response
	due to the proximity to the coastline.		CapeNature	disturbed by previous construction and current operations at KNPS. The TISF will be located more than 100 m from the high-water mark of the sea (refer to Figure 3-5 of the EIA Report). It is not considered necessary for the terrestrial specialist to focus on the impact on coastal and dune ecology and related processes.
38.	What are the potential visual impacts of the TISF?	BID	Graham Arbuckle, private	The potential deterioration of sense of place and aesthetic value caused by the TISF was assessed in a Visual Specialist Study (refer to Section 6.8 of the EIA Report). The TISF will be located in the KNPS Owner Controlled Area, a substantially modified landscape and is therefore unlikely to have significant negative visual impacts for receptors.
39.	How will the contamination of groundwater be prevented?	BID	Bettie Leedo, CoCT	The potential impact on groundwater was assessed in a Geohydrology Specialist Study (refer to Section 6.3 and Appendix G of the EIA Report), and was considered to be insignificant assuming implementation of the mitigation measures described in those sections of the report.
40.	General operational health and safety precautions must be followed.	BID	Oloff Dreyer, private	All applicable regulations and requirements will be met by Eskom.
41.	What is the projected design lifespan of the proposed casks, as well as the expected period that the materials stored within the casks would remain hazardous?	BID	Graham Arbuckle, private	The design lifespan is 50 years and service life is up to 100 years. The used fuel is hazardous for more than 100 years.
42.	What safety checks would be undertaken to ensure the casks remain effective, and what procedures are in place for replacing the casks as required?	BID	Graham Arbuckle, private	Casks are inherently safe. However, to ensure they remain effective, inspections are regularly performed.
43.	Koeberg is not secure enough from the sea side. What if there is an attack?	BID	A.M. Neethling, private	KNPS have security protocols in place to counteract seaside and land based attacks.
44.	Is there any international experience of casks leaking and emitting radiation?	BID	Ian Gildenhuys, CoCT	The casks are constructed of steel and concrete and contain polymers which absorb radiation. The integrity of casks is stringently tested according to NNR standards. Extremely robust technology is used to prevent radiation exposure, and casks are designed to withstand a 9m drop and temperatures of 800°C. No casks are known to have leaked to date.
45.	If the casks are damaged, will there be radiation exposure?	BID	Morné Theron, CoCT	Casks cost approximately R 40 to 50 million each, and are designed for at least a 50-year lifespan. Monitoring between the two lids of an individual cask takes place, so that any leaks would be detected. Any maintenance on the casks will be conducted inside the Cask Storage Building (CSB). The lids of the casks will never be lifted, and the fuel assemblies will never be exposed to the atmosphere.
46.	What is the security risk of used fuel storage in the TISF?	BID	Ian Gildenhuys,	Each cask weighs approximately 150 tonnes, so they are not easily moved or stolen.

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			CoCT	In terms of International Atomic Energy Agency (IAEA) requirements, the TISF will need to be monitored and will be linked to cameras at KNPS. It will also be independently monitored by the IAEA.
47.	Although KNPS is a secure site, the TISF, with its upstanding storage casks, would be at a major risk of drone attacks. Sophisticated air strike detecting equipment would need to be installed around the site, with the capability to both divert the drones and shoot them down.	DSR	Mike Thurgood, private	The KNPS site has to comply with NNR and National Key Point Acts. Therefore, all security threats on KNPS (which will include the TISF site) have been identified and addressed accordingly. In addition, the cask design is robust against external impact forces (i.e. cask can typically withstand an aircraft crash), including explosive forces. As part of the NNR licensing process all postulated credible and non-credible external influences (i.e. missile and explosive attacks) are considered.
48.	It is anticipated that the construction of access roads and the development of the TISF will generate noise, dust and exhaust emissions. The applicant must comply with the relevant noise and dust control regulations. Adequate air pollution, dust and noise mitigation measures for all phases of the project must be included in the draft Environmental Management Programme (EMPr) to be submitted during the next phase of the EIA process.	DSR	Peter Harmse, DEA&DP	The impact of the construction of access roads and the development of the TISF on air quality (including noise, dust and emissions) is assessed in Section 6.2 of the EIA Report. Suitable mitigation measures with respect to managing impacts related to noise and air pollution (vehicle emissions and dust) are included in the EMPr (Appendix Q of the EIA Report). These mitigation measures will ensure compliance with the National Dust Control Regulations and Western Cape Noise Control Regulations.
		DSR	Morné Theron, CoCT	
49.	Personnel must be trained in emergency response procedures dealing with accidental spillage/leakage of spent fuel from dry casks.	DSR	Peter Harmse, DEA&DP	The update of the ERP will include appropriate mitigation measures for accident conditions.
50.	Both site alternatives are considered previously disturbed as a result of the previous power station construction activities, but appear to have been recolonized well by strandveld species. The terrestrial specialist should ensure that no threatened species will be impacted. This will require a later winter/early spring survey, with assistance from a local botanist familiar with the flora. These aspects should be specified in the Terms of Reference. In addition, the specialist should consider suitable mitigation for the loss of over one hectare of an Endangered ecosystem.	DSR	Morné Theron, CoCT	The terrestrial ecology specialist confirmed that <i>“The vegetation assessment was undertaken in June 2015 and was therefore not undertaken in the peak spring flowering season for the region. Therefore, a lack of flowering perennial plant material and the absence of annual and bulbous species which only occur after winter rainfall, created a limitation to the identification of floral species and Species of Conservation Concern (SCC) in the area. However, the level of detail undertaken in the study is considered sufficient to ensure that the results of this assessment accurately define the Ecological Importance and Sensitivity (EIS) and the Present Ecological State (PES) of the site alternatives and to provide the relevant planners and decision makers with sufficient information to formulate an opinion on the viability of the proposed development from a conservation viewpoint.”</i> Refer to Section 6.4 and Appendix H of the EIA Report.
51.	External casking is an excellent and proven technology that is safe for this cause. The chosen locations on site guarantee its protection, control and strict oversight.	DSR	Trevor Moodley, Eskom	Noted.
52.	Is used fuel solid or liquid? Can used fuel leak?	SR	Thorsten Aab,	Used fuel is solid, with some gases contained within a metal tube. The metal tube can

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			DEA&DP	form pinholes that leak due to oxidation. At KNPS, used fuel is tested for absence of leaks before it is loaded into dry storage casks. The interior of the casks is filled with Helium (an inert gas) to preclude oxidation thereby preventing degradation of the metal tube during storage.
53.	How hot are the storage casks storing used fuel after 10 years? Won't the heat generated from the storage casks affect the environment?	SR	Thorsten Aab, DEA&DP	The heat generated by the casks is minimal and is dissipated naturally without having an effect on the environment.
54.	Will the timelines and urgency for implementation of the TISF clash with the replacement of Refuelling Water Storage tanks and steam generators?	SR	Trevor Moodley, Eskom	Some work will take place concurrently. Dedicated project teams will ensure the projects are executed as planned.
F. Cumulative Impacts				
55.	What is the layout and location of the TISF in relation to the Nuclear 1 site?	BID	Graham Arbuckle, private	The TISF will be located within the Owner Controlled Area of KNPS. The location of the TISF in relation to all other current projects at KNPS is illustrated on Figure 6-4 of the EIA Report.
56.	The EIA process must take into consideration the other proposed projects on the Koeberg site, in order to assess the cumulative impact of all these projects. The following projects could potentially contribute to the cumulative impact: <ul style="list-style-type: none"> • Eskom Nuclear-1 proposals • Eskom Weskusfleur substation proposals • Sunbird Ibhumbesi methane gas pipeline proposals • Western Cape Government LNG pipeline proposals • City of Cape Town pilot desalination plant proposals. 	BID	Graham Arbuckle, private	The potential direct, indirect and cumulative impacts (negative and positive) of the project and the No Go option are assessed in Section 6 of the EIA Report. The cumulative impacts of those projects identified by the stakeholder as well as other proposed projects identified in the area by Eskom are described qualitatively in Section 6.8 of the EIA Report.
57.	What is the cumulative exposure of radiation from the TISF, the existing nuclear plant, and the proposed new nuclear plant (Nuclear 1)?	BID	Ian Gildenhuys, CoCT	The cumulative radiation from the KNPS site and the TISF is expected to be almost negligible (see Section 6.6.2 of the EIA Report). The cumulative radiation impact which considers the proposed new nuclear plant at KNPS will need to be determined as part of the assessments associated with that project, as this information is not yet available.
58.	The EMPr must contain details of how the storage facility will be monitored for radiation for worker and public safety for the duration of the project.	SR	Morné Theron, CoCT	The EMPr contains details of radiological monitoring proposed for the TISF. This information is also presented in Section 3.6.4 of the EIA Report.
G. Current Operations				
59.	How often do (maintenance) outages occur?	BID	Morné Theron, CoCT	KNPS performs an outage approximately every 18 months per reactor unit.
60.	What is done with contaminated water used for cooling in	BID	Zayed Brown,	The SFPs are in a closed system, i.e. the water stays in the pools and is filtered to

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	the SFPs?		DEA&DP	remove some of the contaminants. This water is not released into the environment.
61.	How long has KNPS been storing used fuel? Is all used fuel currently stored in the SPFs?	SR	Thorsten Aab, DEA&DP	All used fuel assemblies produced since the start of operation are stored in the spent fuel pools, with the exception of 112 used fuel assemblies stored in dry storage casks in the CSB.
62.	Is the KNPS running at maximum capacity?	SR	Thorsten Aab, DEA&DP	The KNPS is currently running as designed, at 100% power output.
H. The EIA Process				
63.	Will the proposed development include specialist studies related to health and safety risk? Will these studies also include the natural environment as potential affected components within these studies?	BID	Rhett Smart, CapeNature	A Terrestrial Ecology Specialist Study, Heath Specialist Study and a Radiation Assessment Review were undertaken as part of the Impact Assessment Phase (refer to Sections 6.4 and 6.6 and Appendices H, I and N of the EIA Report). In addition, Eskom will commission review of the ERP to provide assurance that risks and emergency response linked to the TISF are adequately addressed and/or recommend measures to ensure that this is the case. SRK will ensure that the risk on the natural environment is included in the scope of these studies.
64.	The proposed project requires a comprehensive risk assessment, including consequential risks and cumulative risk in the event of: 1) A seismic event 2) Fire 3) A nuclear emergency at KNPS 4) Risk assessment on the interaction between Koeberg and Nuclear 1.	BID	Graham Arbuckle, private	The establishment of the TISF will be incorporated into the existing KNPS Emergency Response Plan. This Plan will provide adequate management measures for environmental risks.
65.	The review of the existing Koeberg Nuclear Power Station Emergency Response Plan must address accidental emission from the dry casks to the atmosphere and must include the emergency incident procedures referred to in Section 30 of NEMA. Any incident must immediately be reported to the relevant authorities and all the necessary documentation must be completed and submitted to the relevant authorities within the prescribed timeframes.	DSR	Peter Harmse, DEA&DP	Update of the KNPS ERP falls outside the scope of this EIA process and will be undertaken/commissioned at a later stage.
66.	The applicant is hereby reminded of his requirement to comply with the "Duty of care" as defined in Section 28 of the NEMA.	DSR	Peter Harmse, DEA&DP	The construction and operational phases of the TISF project will take the "Duty of care" principle into account to lessen any negative impacts on the surrounding environment.
67.	A conceptual stormwater management plan in terms of the City of Cape Town: Management of Urban Stormwater Impacts Policy (2009) must form part of the final EIAR. As	DSR	Morné Theron, CoCT	A conceptual stormwater management plan for the TISF project, taking account of the CoCT requirements is attached as Appendix F of the EIA Report.

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	such this must be included in the proposed plan of Study of the EIA as already acknowledged in section 3.5.7 of the DSR.			
68.	Regulation 40(3) of the 2014 EIA Regulations states that potential Interested and Affected Parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to the submission of an application but must be provided an opportunity to comment on such reports once an application has been submitted to the competent authority.	DSR	Salome Mambane, DEA	Noted. Although the Draft Scoping Report was released to stakeholders and authorities for comment in March 2016, prior to submission of the application to DEA, the Scoping Report (revised in response to any comments received to date) was again released for public and authority comment in July 2016, following submission of the application.
69.	A copy of the Notice of Intent to Develop (NID) submitted to Heritage Western Cape (HWC) must be included in the next phase of the EIA process.	DSR	Morné Theron, CoCT	A copy of the NID and HWC's record of decision are attached as Appendix C to the EIAR.
70.	The EIA Regulations, 2014, stipulate that a Scoping Report must include a motivation for the need and desirability of the activity in the context of the preferred location, however, a motivation of the need and desirability in the context of the preferred location has not been included.	DSR	Melanese Schippers, DEA&DP	A motivation for the need and desirability in the context of the preferred location was included in the Scoping Report released for public comment in July 2016 following commencement of the formal Application process.
71.	Will the specialist studies be peer reviewed?	SR	Ian Gildenhuys, CoCT	In response to the request from DEA, all in-house specialist studies as well as specialist input into the EIA Report (i.e. the Stormwater Management Plan, the Geohydrology Impact Assessment and the Socio-economic and Visual components of the EIA Report) were peer reviewed by independent external specialists. Independent review reports are included in Appendices F, G, O and P, respectively. The Radiological Assessment commissioned by Eskom was also independently reviewed and the review included in Appendix N.
	Although DEA&DP would consider the SRK specialist studies to be independent, if DEA does not share this view they may call for review.		Adri la Meyer, DEA&DP	
	Should in-house specialists be used for any specialist study, the specialist study must be peer reviewed by external specialists.	SR	Portia Makitla, DEA	
72.	Will the monitoring requirements specified by specialists be included in the EMPr? Will detail on the radiation monitoring network surrounding KNPS be included?	SR	Ian Gildenhuys, CoCT	None of the specialists have identified the need for ongoing monitoring with respect to biophysical or socio-economic impacts of the TISF. Details of the radiation monitoring network surrounding KNPS are included in Section 3.6.4 of the EIA Report.
73.	As per the definition of urban areas in terms of the EIA Regulations, 2014, the proposed development is considered to be located outside of an urban area. As such, Activity 4 of GN. No. R.985 may be applicable to the proposed development should the road be developed in an area containing indigenous vegetation.	SR	Melanese Schippers, DEA&DP	Agreed, Alternative 1 for the proposed the TISF will be situated outside an urban area but located within the already developed KNPS site which is zoned as "Risk Industry". It is important to note a new section of road will not be constructed but rather a portion of existing gravel road with dimensions (6m width and 20m length) will be surfaced / tarred to connect the existing haul road to the TISF at the entrance to Alternative 1. This section of gravel road to be upgraded is already disturbed and

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				therefore does not contain any indigenous vegetation and therefore does not constitute an additional Listed Activity 4 in terms of the 2014 EIA Regulations.
74.	In response to the NID that was submitted on 16 March 2016, HWC responded that no further action in terms of Section 38 of the National Heritage Resources Act, Act 25 of 1999 (NHRA) is required. The rationale for conducting a Heritage Specialist Study is therefore questioned.	SR	Adri la Meyer, DEA&DP	Due to the timelines stipulated in the EIA Regulations (2014), specialist studies were commissioned prior to completion of the Scoping Phase, and receipt of this correspondence from HWC. The heritage assessment undertaken informed the NID submitted to HWC (refer to Appendix C and J of the EIA Report).
75.	The Department of Water and Sanitation (DWS) has indicated that the TISF does not require a water use authorisation in terms of the National Water Act 36 of 1998. The SR states that the construction of the TISF may potentially impact on groundwater levels and quality, <i>“although this is unlikely as groundwater at the project site is deeper than the proposed TISF excavation depth.”</i> It is further noted that there is no downstream use of groundwater and that the receiving environment/downstream receptor of any potential contamination would be the shore zone/sea. The rationale for conducting a Geohydrology Specialist Study is therefore questioned.	SR	Adri la Meyer, DEA&DP	Due to the timelines stipulated in the EIA Regulations (2014), specialist studies were commissioned prior to completion of the SR, based on the potential impacts identified.
76.	All relevant listed activities must be applied for, and be specific enough to link to specific development activities or infrastructure described in the project description.	SR	Portia Makitla, DEA	Noted. Listed activities and their corresponding project related descriptions have been included in Section 2.1.2 of the EIA Report.
I. Regulatory Requirements				
77.	With regards to the Koeberg Nature Reserve Management Plan, is CapeNature and Koeberg Nature Reserve Management’s approval needed before the project can commence?	BID	Graham Arbuckle, private	The TISF does not fall within the Koeberg Nature Reserve and amendment of the Koeberg Nature Reserve Management Plan will not be required. CapeNature is identified as a commenting authority for TISF EIA.
78.	What is happening in the National Nuclear Radioactive Waste Disposal Act?	BID	Graham Arbuckle, private	The purpose of the TISF will be for the temporary storage of used fuel and not nuclear waste and, therefore, this Act will not be applicable to this facility. The CISF (which is not included in this project scope) is a proposed central storage facility for used nuclear fuel and waste, to be established by the National Radioactive Waste Disposal Institute.
79.	The TISF must meet the requirements of the National Nuclear Regulator and must be constructed and managed according to the International Atomic Energy Agency safety standards.	DSR	Peter Harmse, DEA&DP	The TISF project will fulfil the requirements of the NNR and IAEA standards. The need for the facility to comply with the requirements of the NNR as well as the IAEA safety standards are discussed in sections 2.1.7 and 2.2.4 of the EIA Report, respectively.

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80.	The transport of the casks by road from the point of manufacture to the TISF (unladen) and from the TISF to the CISF (laden) will require Abnormal Load permits to be issued by the WCG Road Network Management Branch. This Branch will not consider issuing the necessary permits until other restrictive conditions of transport are approved by the relevant institutions.	DSR SR	Alvin Cope, WCG	Requirements for Abnormal Load Permit related to the TISF project are noted by Eskom and will be applied for from the Western Cape Road Network Management Department.
J. General				
81.	What happened at the Fukushima nuclear power plant in Japan?	SR	Thorsten Aab, DEA&DP	Following a major earthquake, a 15m tsunami disabled the power supply and cooling of the three Fukushima reactors, causing a nuclear accident on the 11 th of March 2011. There were no cooling problems with the dry storage casks during and following the nuclear accident.
82.	The current storage [next to] the In Service Inspection (ISI) building is sufficient evidence to warrant the continued storage of spent fuel in dry casks.	SR	Trevor Moodley, Eskom	Noted.
83.	The Melkbosstrand Ratepayers Association has no objection to the proposed TISF.	SR	Smokie la Grange, Melkbosstrand Ratepayers Association	Noted.