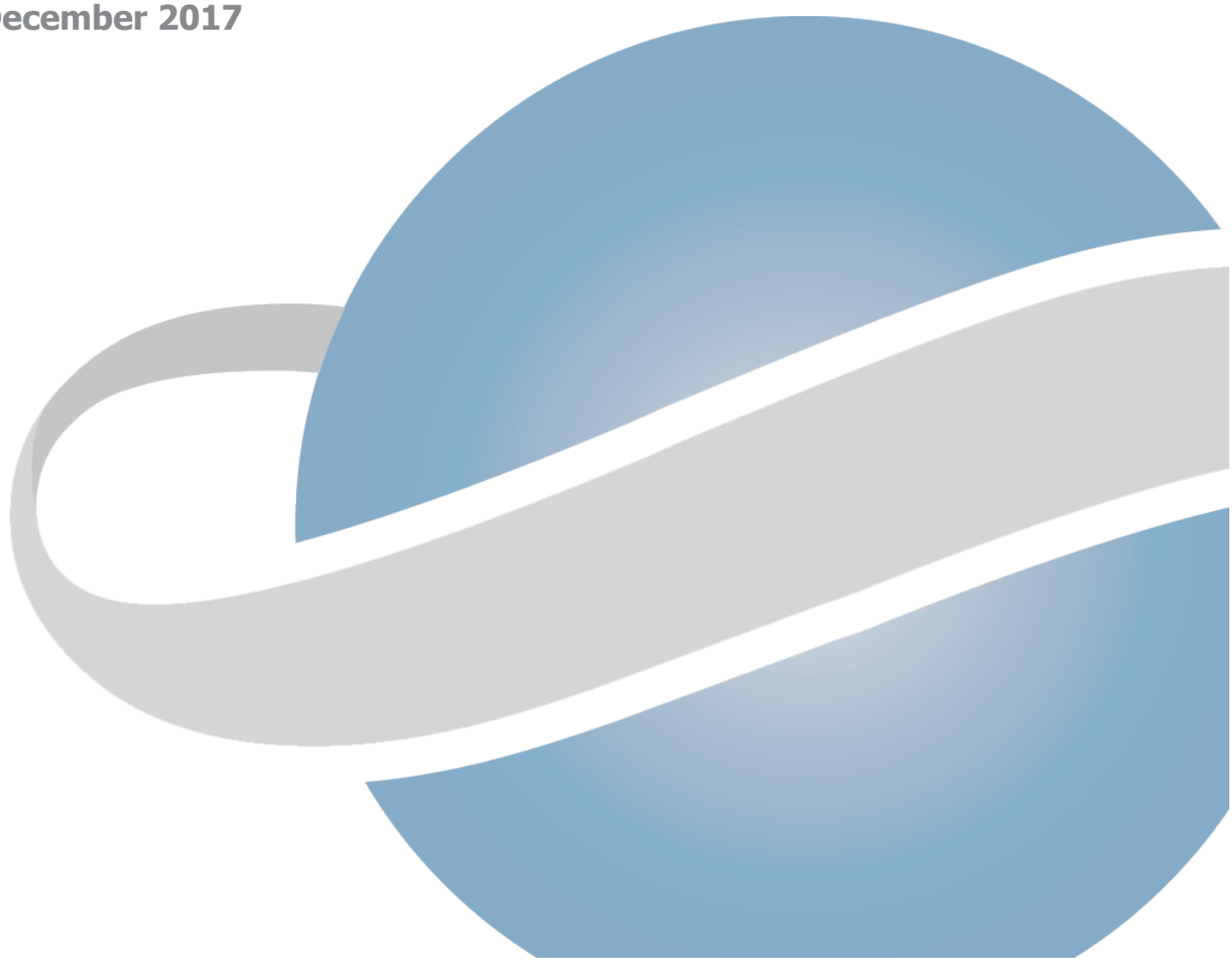
SUSTAINABILITY
FUTURE GROWTH

EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT

Independent Environmental and Social Due Diligence and Monitoring Assignment for TANAP Pipeline Construction Pre-Completion Phase – Monitoring Visit Report

December 2017



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1. INTRODUCTION

1.1 Background

The TANAP Project involves an 1,850 km pipeline to facilitate the transport of natural gas produced from the Shah Deniz Phase II development in Azerbaijan to Turkey and Europe. The TANAP Project will connect the South Caucasus Pipeline Expansion Project (SCPx) in Georgia to the Trans Adriatic Pipeline (TAP) Project, which commenced construction in March 2015 and extended through Greece and Albania and across the Adriatic Sea to southern Italy.

The TANAP is being developed by a group of shareholders who currently comprise of Southern Gas Corridor Closed Stock Joint Company (58%), BOTAS (30%) and BP (12%) and are herein referred to collectively as the "Sponsors". The TANAP Project, in conjunction with the South Caucasus Pipeline (SCP) and the Trans-Adriatic Pipeline (TAP) form the elements of the Southern Gas Corridor.

TANAP will run from the Georgia border, beginning in the Turkish village of Türkgözü in the Posof district of Ardahan, will pass through 20 provinces ending at the Greek border in the İpsala district of Edirne. Two off-take stations are located within Turkey for national natural gas transmission, one located in Eskişehir and the other in Thrace. With 19 km running under the Sea of Marmara, the main pipeline within Turkey reach a total of 1850 km, along with off-take stations and above-ground installations, with their numbers and properties detailed below:

- 4 compressor stations;
- 4 measuring stations;
- 11 pigging stations;
- 49 block valve stations; and
- 2 off-take stations to supply Turkey's national natural gas network.

In addition to the aboveground installations, temporary camps to accommodate workers, pipe storage areas and access roads necessary during the construction phase will also be built.

The construction works associated with the pipeline have been split into four Lots, with a separate Construction Contractor (CC) appointed for each Lot.

Mechanical completion of Phase 0 of the onshore section of the pipeline is expected to be completed by the end of 2017, while material completion of Phase 1 pipeline works is expected for the end of 2018. The offshore section of the pipeline construction commenced in June 2017.

1.2 Purpose

Sustainability Pty Ltd (Sustainability) was engaged by the European Bank for Reconstruction and Development (EBRD) as the Independent Environmental Social Consultant (IESC) to conduct a pre-completion environmental and social due diligence review and monitoring of the TANAP Project prior to the material completion of construction of the Phases 0 and 1 of the Project.

The objective of this Assignment is to monitor and review:

- Project compliance with specific provisions and the overall objectives of the ESIA, RAPs, BAP, SEP, ESAP and other project documents;
- Implementation of mitigation measures, as documented in the Commitments Register and Environmental and Social Management Plans to address material E&S risks and issues associated with the Project;
- Key documents not already finalised but relevant to Project and due prior to the completion of construction and Board consideration of the Project by EBRD as specified in the EBRD ESAP;
- Material changes in Project design and operations since E&S due diligence was undertaken; and
- General E&S performance and the extent to which the Project is in compliance with the EBRD Performance Requirements, IFC Performance Standards including relevant sector specific EHS Guidelines of the World Bank Group and the Equator Principles.

The monitoring assignment is commensurate with, and proportional to, the potential risks, aspects and impacts of the Project. As part of this role, a site audit was conducted by the Sustainability Independent Consultant team. The site visit included the following tasks:

- Inspection of Project site locations that were agreed with the Sponsors and Lenders including pipeline construction, compression and metering stations;
- Interviews with Project Health, Safety, Environment and Social (HSES) and other personnel and key stakeholders as relevant to the scope of work;

- Review of the implementation of the Environmental and Social Management Plan for Offshore Construction and relevant Offshore Emergency Response Plan; RAP Fund Management Procedure and Revised Entitlement Matrix; Livelihood Restoration Plans Review of material E&S risks and issues; and

Meetings with relevant project affected persons & stakeholders, especially those affected by the construction of the Above-Ground Installations and Offshore Section of the pipeline.

The purpose of this report is to detail the findings of the Monitoring Assignment against the requirements of the EBRD Performance Requirements (PRs), IFC Performance Standards including relevant sector specific EHS Guidelines of the World Bank Group and the Equator Principles. This report represents the findings from the information obtained from the site visit itself and pre-and post-site visit documents provided by TANAP.

The EBRD's Performance Requirements relevant to this scope of work are PRs 1-6, 8 and 10 (PR 7 requirements are not triggered, and PR 10 is not relevant).

1.3 Site Visit Details

The site visit was conducted from the 11th September 2017 – 15th September 2017 by the Independent Consultant team and EBRD members. The team members included:

- John Miragliotta: Independent Consultant Team Project Director/Project Manager, Biodiversity Specialist;
- Colin Davies: Independent Consultant Team Environmental & OHS Specialist;
- Amy Sexton: Independent Consultant Team Social Specialist;
- Bossan Annayeva: EBRD Senior Environmental Adviser;
- Jeff Jeter: EBRD Senior Environmental Adviser;
- Peter Moore: EBRD Senior Environmental Adviser; and

The itinerary for the site visit is located in Appendix A and was subject to slight modification as operational constraints or opportunities became apparent.

In summary, the following activities were undertaken and locations were visited.

1.3.1 Lot 2, Spread 3 Pipeline Route, Erzincan.

The construction contractor at this location was SYA JV. The following locations were visited while at Lot 2:

- Kelkit fly camp (facilities);

- Main camp site (facilities);
- Erzincan Freshwater Critical Habitats (FCH 9 KP 506 & FCH 10 KP 510);
- Block Valve Stations (BVS 15 KP 510, BVS 12 KP 410);
- Reinstatement areas;
- Eskiyol Village - meetings with Muhktar and members of local community;
- Topalçavuş Village Visit meeting held with Muhktar and Villagers;
- Güneyçam Village - meeting with Muhtar;
- TANAP Environmental Office; and
- TANAP Labour Office.

1.3.2 Compressor Station 5/Metering Station 2, Eskişehir

The construction contractor at this location was Tekfen (TKN). The following activities were observed/undertaken during this visit:

- Interviews at Site Camp with Contractor's Environmental, H&S and Security Managers regarding issues related to environmental monitoring and management, contractor workforce and labour influx and health issues;
- Interviews at Site Camp with Contractor's Social Performance manager and Social Development Specialist regarding workers grievances, relations with the community and community grievances;
- Interviews at Site Camp with construction workers;
- Inspection of construction activities including high impact work; and
- Inspection of camp (facilities).

1.3.3 Offshore section

The construction contractor at this location was SPK. The following activities were observed/undertaken during this visit:

- Interview with Construction Manager/Contractor from SPK;
- Interview with Contractor's Personnel Manager (HR Representative);
- Interviews with Contractor's Environmental, H&S and Security Managers regarding issues related to environmental monitoring and management, contractor workforce and labour influx and health issues;

- Interviews with Contractor's Social Performance Manager and Social Development Specialist regarding workers grievances, relations with the community and community grievances; and
- Offshore construction area site visits and interviews with construction workers.

2. SUMMARY OF MAJOR FINDINGS AND OBSERVATIONS

The intent of this Monitoring Assignment Report is to document the findings and observations resulting from the site visit as they were noted during the various activities undertaken while on-site. This report also factors in documentation provided prior to attending the site visit, in consideration of what could be reasonably reviewed given the limited timeline between contract execution and the conduct of the site visit.

The site visit led to a range of additional documentation being requested (Appendix B) with the intent that this documentation would assist in answering outstanding findings and observations that arose. This report captures the majority of information provided by TANAP in response to the post site visit document request. However, due to the reporting timeframes, there were some documents that could not be fully reviewed. The IESC will complete a follow up of those documents that could not be fully reviewed during the next monitoring exercise.

A media search focussing on the Project, Client, sector, country, etc. to determine the extent to which there has been relevant news coverage did not return any results or issues which required additional verification during the site visit monitoring work.

The below sections summarise the main findings observed during the site visit against the EBRD PRs. No material non-compliances against EBRD Performance Requirements were identified, however some partial compliances were identified and are detailed in the following sections and section 3 of the report (EBRD Audit Tables).

2.1 Performance Requirement 1

2.1.1 Environmental and Social Assessment

The environmental and social impacts have been assessed through a systematic process and applied for all Project components as identified through the ESIA scoping and engagement with key Government stakeholders in Turkey. The ESIAs have been developed to meet national standards, TANAP policy and guidance provided by international institutions such as the IFC, EBRD and EU.

The Offshore Construction Impact Management Plan (CIMP) and Emergency Response Plan (ERP) have been reviewed and publicly disclosed by TANAP. The IESC reviewed the latest revision of the disclosed offshore Construction Contractor (SPK) Construction Impact Management Plan (Rev P4-0) and determined that it lacks specific detail relating to finalised construction methodology and equipment. The adequacy of these documents could be significantly improved.

Section 8 of the Construction Impact Management Plan (Worksite and Construction Methodology) states that the method of trenching and/or dredging is yet to be determined at the time the document was produced. The ESIA conflictingly states that dredging will not take place, however at the time of the visit, dredging on Anatolian and European landfall sites was almost complete despite the CIMP not being updated to reflect this. The CIMP also lacks detail in methodology and equipment to be used. However, the site visit verified that sufficient procedural detail exists in the Execution Plan and ESMP documents such as the Construction Contractor (SPK) Erosion, Reinstatement, and Landscaping Plan (SPK-PLN-ENV-DAR-004). These documents are supplementary to overarching documents such as ESIA and CIMP. The Construction Impact Management Plan should have been updated to include detailed descriptions and statements of methods, techniques and equipment to be used prior to the construction activities taking place.

In addition to this, the Construction Impact Management Plan does not seem to be linked to the risk assessment and does not relate to it in an effective manner. For example, the Construction Impact Management Plan does not detail any specific mitigation management strategies such as erosion control measures and trigger values for sediment control. Rather, the individual sub-level management plans are referred to such as the Erosion, Reinstatement and Landscaping plan. As the ESIA and Construction Impact Management Plan are publicly disclosed documents and the Construction Impact Management Plan explicitly states (Section 8a) that 'this live document shall be updated once the method of trenching and/or dredging is finalized' this is considered as a gap in the publicly available E&S documentation that should be addressed. It is recommended that the Construction Impact Management Plan be updated to reflect current status of work and to provide information where detail is lacking or is yet to be determined/considered. Mitigation measures, such as sediment control, should also be included, and trigger values and response actions documented.

At the time of review, the IESC noted that the offshore Emergency Response Plan failed to identify environmental emergency response team (EERT) members. As the offshore construction activities had commenced at the time of the monitoring visit, these team members should have been identified and included within the ERP. As such, no notification detail for EERT members was witnessed at the construction sites which may have caused issues and time delays in the event of an environmental emergency. The IESC has since been made aware that the ERP has been updated to include pipelay vessel protocols and emergency response teams.

2.1.2 Environmental and Social Management System

At the commencement of the Project, TANAP employed a three-tiered contractor structure to implement the Project, with an Engineering, Procurement, Construction and Management (EPCM) contractor managing the selected Construction Contractors in the field. TANAP modified this structure to an integrated two-tier organisation (with TANAP and Construction Contractors), removing the EPCM contractor from the organisational structure. TANAP ESMS documentation has since been updated to reflect the change in organisational structure and is reflected in construction contractor documentation.

The construction contractors' ESMSs are comprehensive and well established with regular monitoring, reporting and inspections taking place across the construction Lots. Construction Contractor environmental and social responsibilities are well understood which is reinforced by adequate numbers of skilled staff to maintain high levels of implementation. However, the site visit identified a number of examples (as outlined further in PR3, PR4 and PR6 discussions) where there was inconsistent implementation of environmental and social controls by Construction Contractors. The inconsistent implementation of mitigation measures indicates potential deficiencies in the internal and third party E&S monitoring conducted across the construction Lots. The site visits of the reinstated RoW, BVSs and FCH raised concern regarding TANAP's and contractor's failure to identify gaps in ESIA and MP commitments relating to public access to sites, health and safety, erosion control and general housekeeping.

An improvement in the E&S monitoring by TANAP, Construction Contractors and third party monitoring is required across the construction lots to ensure that mitigation measures are being implemented consistently and effectively. Additional refresher training and communication between TANAP, Construction Contractors and third party monitors is required to ensure that gaps in commitments are adequately identified and corrective actions are implemented.

The IESC understands that TANAP issue Non Conformance Reports or formal letters when non-compliances are identified. However, responses to findings must be addressed in a timely manner especially in relation to high priority observations such as lack of erosion control measures and accumulation of waste in critical habitats as observed during the latest site visit. The IESC notes that TANAP and construction contractors addressed the observed site condition issues referred to above immediately during the site visit. TANAP may also wish to supplement its current training program to ensure that all parties, especially those tasked with environmental monitoring fully understand the project E&S commitments.

2.1.3 Environmental and Social Management Plans

TANAP has developed and implemented a detailed suite of Environmental and Social Management Plans (ESMPs) for the Project. Construction contractor ESMPs have been reviewed and approved by TANAP and are aligned with TANAP ESMPs.

The IESC reviewed alignment sheets for detailed information relating to installed erosion control measures in accordance with Construction Contractor Erosion, Reinstatement and Landscaping Management plans.

During the site visit of Lot 2, Spread 3, an inconsistency between the alignment sheets and the classification of installed erosion control measures was observed. This inconsistency was raised by the Lot 2 Contractor, as a formal Deviation Request (DVR No.109) and it is noted by the IESC that this DVR was responded to by TANAP and the Contractor has been instructed to address the changes through making the appropriate corrections in the as built alignment sheets.

Offshore pipeline hydrotesting is scheduled to occur in March 2018. A hydrotesting plan is yet to be developed. However, the requirement has been clearly identified within the TANAP Project requirements and Contractor deliverables. Once hydrotesting planning has been completed to incorporate corrosion parameter analytical data, the hydrotesting plan will be finalised and implemented.

An improved and more comprehensive Construction Contractor document review process is to be restarted to ensure that ESMPs such as the hydrotesting plan, CIMP and ERP are developed/revised, reviewed and approved as adequate ahead of construction activities.

2.1.4 Project Monitoring and Reporting

TANAP has documented and is implementing the following monitoring activities as part of their ESMS:

- Environmental Action Plan;
- Environmental Monitoring Plan;
- Social Action Plan;
- Social Monitoring Plan;
- Resettlement Action Plan; and
- Biodiversity Action Plan.

Regular monitoring and reporting of HSES requirements against stated Key Performance Indicators (KPIs) was observed. However, opportunities for improvements to overall monitoring have been identified considering the observations noted in section 2.1.3 above.

Freshwater Critical Habitat 9 (KP 506), Lot 2 Spread 3 was visited during the monitoring visit. The FCH site had recently been accessed for hydrotesting purposes and left in a poor physical state. Waste and remnants from hydrotesting were scattered across the site, and physical signs of riverbank erosion was evident (from a flooding event that occurred earlier in the spring/summer). As this is categorised as a Fresh Water Critical Habitat, having destabilised and exposed soils at the river crossing exacerbates the potential for increased turbidity and related impacts to sensitive aquatic flora/fauna. Therefore, it would be prudent to introduce a requirement for additional monitoring, which should be triggered in the event, for example, of seasonal precipitations exceeding regular levels, or extreme weather events such as, for example, torrential rains, strong winds, flooding, mudslides and landslides. The FCH site is in close proximity to a public road (~50m) and it would be expected that additional monitoring should have been implemented to ensure that best practice and commitments made in ESIA and MPs, such as erosion control measures, had been installed to prevent impacts to wildlife by third-parties due to accidental access to/encroachment on the critical habitat areas, that may not be adequately sign-posted or fenced.

It is therefore recommended that TANAP ensure that the construction phase pollution control plans and procedures must be implemented and monitored during the full term of construction, including the period between various sub–contracted activities.

A lack of general housekeeping, public access to sites and health and safety issues relating to poor barricading and fencing was a recurring theme across the several of construction sites visited. For example, soil mixing was evident next to open trench at BVS 12. Top soil was not stored in a separate location to back fill material. The use of geo textile had not been implemented in this area. In addition to the above, the IESC observed a lack of site boundary delineation. The internal working site boundaries must be clearly demarcated with flagging, conduit etc. to ensure that the physical footprint does not exceed permitted requirements. During the last due diligence audit, the IESC reported the same observation. It was noted during the visit that the disturbance footprint of working areas seems to be expanding with incidences of adjacent land being used for car parking, particularly at BVS 15 (KP 510).

An improvement in E&S monitoring/auditing by TANAP and Construction Contractors in the form of additional communication and refreshment training between TANAP, Construction Contractors and third party E&S monitors is required to ensure that corrective actions are implemented when gaps in commitments are observed. The IESC notes that TANAP and the relevant construction contractors responded immediately to the issues that arose from the site visit and installed appropriate barricading and additional erosion control measures to address the IESC's observations.

The IESC understands that TANAP has issued written warnings to contractors regarding the issues observed identified during the site visit, and has also issued non-conformance reports to the relevant Construction Contractors in accordance with the TANAP Quality Procedures.

2.2 Performance Requirement 2

2.2.1 Wages, Benefits and Conditions of Work and Accommodation

Construction Contractors are implementing Social MPs including Employment and Training, as evidenced during visits to SYA JV (Lot 2/Spread 3), Tekfen (CS5) and SPK (Offshore) sites. The site visit included interviews with workers at all sites and inspection of camp accommodation and facilities at Kelkit, Cadirkaya and CS5/MS2, as well as site facilities at the Anatolian landfall site. Visited camp facilities appeared in line with good international industry practice[1], in providing for suitable space and ablutions per worker in accommodation blocks, dining halls, recreation and laundry facilities.

The site visits clearly identified that a number of previously unemployed or first time employment workers (e.g. workers in camps, such as in laundries and kitchens) have clearly benefited from specialised vocational skills training that has been provided to them. This training will potentially increase their chances of employment in the hospitality services sectors. Interviews with a sample of workers demonstrated a mixed understanding of contract terms, with a tendency for local workers to be less informed about rights and responsibilities with regard to the duration of their employment contracts. The Employment and Training Plan requires that job descriptions will be clearly communicated in advance (of employment) and will contain information on working conditions. While the IESC recognises that the workers have signed their contracts, interview responses suggest that these are not well understood. Efforts to reiterate these terms should be made (e.g. provision of additional briefings/access to third party support for the unskilled groups of workers), particularly in absence of a Trade Union, as is the case for Construction Contractors' subcontractors.

TANAP and its Construction Contractors have held bi-monthly health and safety meetings; these have included discussion on the need to strengthen fatigue management. All LOTs have been required to develop Fatigue Management Plans and conduct training throughout their workforces. TANAP has development a Fatigue Management Plan which provides for risk based assessment and feedback of lessons learned to improve management of fatigue throughout the TANAP and Construction Contractor workforce.

[1] Workers' accommodation: processes and standards - A guidance note by IFC and the EBRD (2009)

Fatigue management measures implemented by Construction Contractors as provided during the site visit were reported to include: risk analysis on all roles to determine suitability for extended shifts; special provisions during Ramadan (fasting period); implementing 10 hour daytime shifts; and, operating overtime or (reduced duration) nightshifts with permission from TANAP only.

The ESAP required TANAP to prepare an engagement program with Construction Contractors on management of overtime. This engagement plan has been developed and is to be completed/implemented by the end of October 2017 with training provided to 8,000 workers on 'Work life and conditions'. While this issue is partly managed through the Working Hours plan, the effectiveness of the mitigation measures is expected to be enhanced through further engagement with workers.

2.2.2 Retrenchment

Retrenchment has already occurred with some Construction Contractors and their subcontractors, for example, where unskilled local workers were engaged for the duration of activity in the area near their villages only, or for subcontractors with no further Projects to which their workers can be moved on to.

Site visit interviews with Construction Contractors indicate that processes being followed are in line with Turkish national labour requirements, i.e. that verbal notification is firstly provided, followed up with written notification of retrenchment. Acquittance notices are prepared for each retrenched worker, which detail calculations on monies owed to the worker and the timeframes in which it will be delivered. Leaflets have been prepared detailing workers' rights, FAQs, and contact information for any follow up.

Retrenchment plans for contractors were provided at the time of the finalisation of this report. A review of the plans identified that the contents vary between contractors with some being very concise with no detailed guidance provided for their implementation, to plans that were very comprehensive embodying a thorough strategy for hiring, managing employment expectations and handling retrenchment and grievances. Ongoing monitoring of the retrenchment process is required, with a focus on those Lots where significant retrenchment is yet to occur. The effectiveness of all retrenchment should be monitored including the timely close out of retrenchment-related grievances in the Online Stakeholder Interaction database (OSID).

2.2.3 Grievance Mechanism

TANAP continues to use OSID (the Online Stakeholder Interaction Database) to track both internal and external grievances. The total number of grievances received from within the workforce since commencement is 196, the majority of which have related to employee wage and overtime payments (46%), followed by unfair dismissal claims (22%) and working conditions (20%). A total of 20 grievances are open, 3 waiting further investigation, and 173 are closed. Quarterly third party monitoring undertaken by CINAR includes the grievance mechanism and was last reported on 14 September 2017. CINAR reported that in LOT 1, 74% of open grievances are overdue (still open after 30 business days), significantly higher than across other LOTS, and further, a common observation of non-registration of all grievances into OSID by CCs. TANAP Social Impact Specialists on site also participate in third party monitoring campaigns and are following up on this monitoring data to ensure all grievances are tracked.

2.2.4 Security Personnel

The Construction Contractor sites visited during the audit confirmed that no weapons are allowed on those sites and training on Voluntary Principles and Human Rights had been implemented with security contractors, as evidenced by training records. The first was conducted in April 2017, and a second round planned for October 2017. SitePlus provides onsite security services and works with Construction Contractors to carry out periodic risk assessments as required by Community Safety MP, and have identified the top security risks and mitigation measures.

2.3 Performance Requirement 3

2.3.1 Pollution Prevention and Control – Air Emissions

A Pollution Prevention Management Plan has been developed by TANAP and its Construction Contractors to minimise and manage pollution on the environment.

During the visit of Compressor Station 5/Metering Station 2, the concrete batch plant was inspected and found to be generating substantial airborne dust. Although there is no statutory obligation or commitment to airborne monitoring at this site, it is recommended that some measurements of dust be undertaken to compare against OHS and environmental standards. The installation of dust mitigation measures in the vicinity of the batch plants is also recommended to provide further protection for worker dust exposure and to protect crops that are located within close proximity to the batch plant. As a minimum line of defence, it is recommended that all workers in the vicinity of the batch plant use dust masks (classification of masks to be informed by air quality monitoring results) and that TANAP consider the installation of suitable fencing to create a protective screen. Screen fencing of the site boundary will also provide a defined boundary between the construction site and agricultural land.

2.3.2 Waste

Detailed consideration of waste streams and their impacts has been provided in the ESIA. Construction Contractors have developed individual waste management plans that align to TANAP's plans. Each plan reviewed by the IESC clearly defined responsibilities; accountable personnel; waste streams; waste management techniques; application of waste management strategy; reporting; training; and, monitoring requirements.

TANAP and Construction Contractors comply with Turkish Legislation, Project Standards and EBRD/EU requirements for waste disposal including: the Basil Convention on the International Transportation of Hazardous Wastes, ratified by Turkey in 1994; the 2008/98/EEC Waste Framework Directive; the EC/1013/2006 Regulation on Shipments of Waste; the 2006/66/EC Directive on Batteries and Accumulators; 99/31/EC Directive on the Landfill of Waste; the 94/62/EC Directive on Packaging and Packaging waste; and, the 91/689/EEC Directive on Hazardous Waste.

Waste contractors are being utilised to transfer waste to the nearest suitable municipality landfill that is licensed and equipped to accept the waste types generated. Many small municipalities do not have suitable waste disposal facilities, in which case the larger regional facilities are used. Recyclable waste materials are segregated into specific bins and disposed of at appropriate facilities licenced by the applicable Ministry. Hazardous wastes are disposed of by a licenced waste disposal contractor with verified permits under Turkish legislation. Medical waste is classified as a hazardous waste and is collected directly from medical facilities and disposed of by a licenced waste disposal contractor with verified applicable permits under Turkish legislation. The IESC observed Chain of Custody records which are held by TANAP and CC which confirm waste has been disposed of at appropriately licensed facilities.

The IESC observed that an additional waste management centre was under construction at Compressor Station 5/Meter Station 2. Tekfen are currently utilising a Central Waste Accumulation Area (CWAA) for the temporary storage of various waste types including package waste, hazardous waste, metal and wood. However, the additional waste management centre is being developed, as the existing facility is not equipped to receive the volume of waste currently being generated. Applicable industrial waste licencing applications will be prepared and submitted to the Provincial Directorate of Environment.

The IESC observed some examples of waste mixing in waste segregation bins across the construction Lots visited, such as oily rags in general waste bins and poor segregation of recyclable materials. Increased workforce awareness of recycling and waste segregation is recommended via toolbox talks to ensure that waste is segregated as per commitments made in ESIA and MPs.

Evidence has been reviewed which confirms that TANAP has conducted site verification audits and inspections of licenced waste disposal facilities along the pipeline route to ensure that Project generated waste is being disposed of appropriately by the contractors.

2.3.3 Greenhouse Gases

The EBRD requires that operations that produce more than 25,000 tonnes CO2-equivalent annually quantify and report these emissions to the EBRD annually, in accordance with the EBRD Methodology for Assessment of Greenhouse Gas Emissions. TANAP are in the process of developing the annual report for 2017 GHG emissions which will be issued in the first quarter of 2018.

2.3.4 Water

As outlined in TANAP's Offshore Assessment Summary Report, the offshore Construction Contractor SPK has undertaken a comprehensive marine monitoring programme. The IESC noted that marine monitoring requirements are defined within the TANAP Offshore Crossing Additional Assessment Studies Summary Report.

Monitoring activities and studies have been undertaken by third party consultants ENCON, which includes the following:

- Marine Environmental Surveys (prior during and post construction);
- Plume Modelling;
- Continuous Turbidity Monitoring; and
- Regular site inspections including marine vessels and equipment.

Sea water quality monitoring studies have been carried out for Anatolian and European landfall areas. Sea water quality was assessed by collecting water samples at 4 stations in the Anatolian landfall area and 5 stations in the European landfall area. A number of parameters were analysed as defined by the MoEU including:

- Physical parameters;
- Heavy metals;
- Hydrocarbons; and
- Radioactivity etc.

To date, there have been no incidences of a breach in these monitored water quality criteria.

Turbidity levels have been continuously monitored during offshore trenching and backfill activities. Additional studies undertaken by SPK's environmental consultant were conducted to determine turbidity monitoring locations taking into consideration physical receptors such as sea grass and the general marine environment, prevailing weather conditions, plume dispersion results and the topography of the construction area. For the Anatolian side, manual turbidity monitoring equipment was installed and for the European side, online turbidity monitoring equipment was installed.

The turbidity monitoring trigger value of 13.29 NTU has been established in the relevant offshore construction mitigation plans. However, the specific actions that result when turbidity trigger values are exceeded, including reporting, is unclear and the documentation that was avaiolable at the time of the site visit lacked specific detail. The IESC understands that the contrcator's pollution prevention documentation has since been been updated to include this level of detail.

To date, the turbidity monitoring results have exceeded the trigger value of 13.29 NTU on a number of occasions with readings exceeding 270 NTU during construction activities and on non-construction days. As outlined in the SPK High Online Turbidity Reading Report (SPK-REP-ENV-DAR-003), significantly high turbidity readings exceeding the trigger value of 13.29 were observed from the online monitoring device for the European side starting from July 30th onwards. To investigate further, sea water samples were taken at five points on 28th July and 12th August and sent for laboratory analysis. The results of the water analysis showed that the turbidity level was low (below 1.0 NTU). It was determined that the cause of the high readings produced by the online turbidity monitoring device for the European side was due to debris causing the wiper brush to get stuck near the turbidity sensor on the buoy. Where the trigger value was exceeded on non-construction days, it was determined that severe weather events caused the exceedance of the trigger value.

Following the incident investigations, SPK has produced a number of corrective actions including regular inspection and monitoring of the continuous monitoring device to ensure that bio-fouling of the sensor does not occur. The IESC noted that monitoring of data is reviewed comprehensively on a daily basis in order to immediately investigate events where trigger values are exceeded and implement the necessary actions in a more responsive manner. However, during the period in which exceedances were reported, monitoring equipment could not be accessed due to the bad weather encountered, which restricted the movement / operation of all vessels. Immediate inspection of the monitoring device has been included as a corrective action by TANAP following the exceedance of the trigger values and will occur when weather permits.

2.4 Performance Requirement 4

2.4.1 Occupational Health and Safety

Construction Contractor MPs and procedures are aligned with those prepared by TANAP, and documentation reflects a mitigation hierarchy approach. Awareness-raising within the workforce of interactions with the community, interactions with emergency responders, and awareness for the workers of potential project hazards are all included in worker training packages.

Comprehensive risk assessments have been conducted for all Project activities with the risk assessments informing subsequent control actions. A range of safety systems have been implemented by TANAP and the Construction Contractors including Method Statements and Safe Work Procedures. High risk work activities, particularly at CS5/MS2, such as pipe lifting, welding and working in confined spaces was observed with safe practices implemented as per the safety systems. Additional H&S supervisors were on ground during high risk work activities showing a beyond compliance and diligent approach to OHS.

During the visit of CS5/MS2, the concrete batch plant was inspected. Despite being exempt from EIA conditions, air quality monitoring for OHS requirements is recommended due to dust generation. The installation of dust screens as a secondary measure is also recommended to provide further mitigation for worker dust exposure and to protect crops which are located within close proximity to the batch plant. As a minimum line of defence, it is recommended that all workers in the vicinity of the batch plant use dust masks (class to be informed by air quality monitoring results).

CS5/MS2 demonstrated excellent use of clearly defined parking bays and flagmen directing heavy machinery in work areas. However, as the construction work continues, and the work force population increases, the possibility of H&S incidents involving pedestrians is increasingly likely. It is recommended that clearly defined pedestrian footpaths are installed around the site with clear demarcation in the form of bunting/barricading and signage.

2.4.1.1 Fatalities and major incidents

There has been 8 Lost Time Incidents in the year to date, 7 of these occurring at Lot 1 and 25 for the Project to date. TANAP has recorded a Lost Time Injury frequency rate of 0.46 which is within the Project target of 0.82. The Project's Total Recordable Injury Frequency Rate (TRIFR) is 1.01 which is also within the Project target frequency rate of 2. Outstanding safety statistics were observed at CS5/MS2 with 5,859,680 LTI free manhours, facilitated by the diligent approach to health and safety including the excellent use of observation cards (unsafe and good practices) and fortified by good communication, toolbox talks, management walks, HSE inspections, emergency drills, behavioural safety audits and safety incentive programmes.

During the last due diligence visit, the IESC highlighted lifting activities exemplified by a fatal lifting incident and several LTIs as a significant area for OHS improvement. A review of the Project incident database during the latest monitoring visit identified approximately 53 near misses and first aid / lost time injuries relating to lifting operations at the time of visit, demonstrating that lifting operations remain a high-risk activity requiring further supervision. TANAP must ensure that Lessons Learnt documents for incidents remain to be shared with all lots and stations, and corrective actions are followed up and implemented. Due to the continuing trend of lifting operation incidents and near misses, TANAP must consider further training and checking of worker competency.

Two fatalities have been recorded by the Project since March 2017, with a total of 8 fatalities since commencement of the Project. The IESC team has reviewed detailed incident reports for fatalities occurring since March 2017. The incident reports are comprehensive with appropriate root causes and corrective actions identified.

During the last due diligence audit, a review of major safety incident reports highlighted a lack of training and inadequate risk assessments had been conducted prior to tasks which led to incidents/fatalities occurring. This is a recurring trend in the recent incident reports reviewed. A lack of training and inadequate risk assessment of tasks has been acknowledged in the incident reports. However, poor implementation of the previous incident report corrective actions relating to these contributory factors is evident.

A review of the heavy machinery strike fatal incident report which occurred at Lot 1, Spread 9 (19th July 2017) demonstrates to the IESC that emergency response was not adequate to the requirement of work being undertaken as the injured person did not receive appropriate immediate emergency medical response such as first aid or professional medical review. The lack of ambulance/medical response to the incident has not been captured or addressed in the incident report corrective action list. Furthermore, the lack of notification or reporting of the incident immediately after it had occurred has not been identified within the report to state what, or if any actions were taken from witnesses to inform applicable members of staff about the incident. The safety manager was not informed of the incident until 16:30 which is after the Injured Person had passed away. Emergency response cards have been provided to workers on site. Emergency contact cards should have been used immediately to inform the emergency response team of the incident.

Emergency response actions must be reviewed following this incident to ensure that sufficient medical response can be provided to injured persons in the event of an incident. Further training should be provided to ensure that workers understand incident reporting/notification protocols.

The IESC noted approximately 86 driving incidents/near misses in 2017 to date, mainly relating to a lack of attention. The IESC understands that all workers have been provided with golden rules cards which state that a risk analysis should be performed so that workers understand the hazards before starting particular tasks. TANAP and contractors have identified training deficiencies in incident reports and investigations. Ongoing training and reinforcement of the Golden Rules and risk analysis processes is recommended to further reduce the incidents involving vehicles and near misses.

TANAP must ensure that JSAs and control measures are developed, implemented and fully understood by all Construction Contractors for all applicable tasks and golden rules cards fully understood and implemented prior to tasks being performed. TANAP must ensure that corrective actions are fully implemented by Construction Contractors and regularly monitored and reviewed to avoid further incidents with continuing contributable factors.

2.4.2 Community Health and Safety

Construction Contractors have developed their own management tools and procedures (pursuant to contracts, ESIA commitments and TANAP's ESMP), which have been approved by TANAP. The Community Safety Management Plan includes awareness of communities and preparedness of Project staff in managing potential community health and safety risks.

TANAP conduct periodic monitoring of the Construction Contractors' Community Safety Management Plan implementation. Cinar additionally undertakes third party independent monitoring. During the last due diligence visit, variation between site management practices was evident between different Construction Contractors, with varying standards of security of site access across the different Lots visited. Varying standards of security of site access was a recurring theme during the latest monitoring visits with inconsistent practices across the Lots including: fencing, signage, open voids and potential hazards.

TANAP reports that trench registers are being kept for the entire route, including the barricading status of open trenches. However, sections of open trench without barricading were observed during the visit. Pipe strings supported by earthen mounds rather than timber skids was also observed on a number of occasions, which pose specific public safety risks. More stringent monitoring is to be applied across constructions Lots by TANAP and Construction Contractors to ensure satisfactory and comparable standards of security of site access and health and safety issues.

In alignment with a key construction phase project risk, there was evidence of strong management of potential road safety impacts to both workers and communities. Evidence was observed which demonstrates that TANAP/Construction Contractors have held community safety meetings, including with women and children on trench access. Concerns were raised about road safety but no accidents involving communities were reported in community meetings attended by the audit team. Indications of effectiveness of training provided to communities on public health include reports to the CC on project drivers travelling at speed through villages; response to this complaint was managed through the grievance mechanism.

Medical facilities are provided at CC camps and were inspected during the site visits (Kelkit, Cadirkaya and CS5/MS2 camps). Camp doctors and health professionals are providing care to workers, while additionally providing support to local communities where this is closer than public health services. While it is recognised by the IESC that access to these health services is a 'good neighbour' practice, CCs must ensure all site visitors are managed in accordance with site security induction and procedures and all visitors to site signed in/signed out for their own safety and to ensure security of the project facilities.

2.4.3 Exposure to Disease

Construction contractors' Community Safety MPs make commitments to provide periodic communicable disease training to workers and training on worker interactions with community members. The Community Safety MP requires that the Construction Contractors prepare studies on incidence of communicable diseases in affected Provinces, based on epidemiological information available to ensure that all precautions are taken to prevent the transmission of such diseases due to the presence of workers. Engagement is required by Construction Contractors with local health authorities to agree appropriate mitigation strategies as required. This is reflected in Construction Contractors' MPs, although epidemiological studies are not being conducted; rather, TANAP is working with Health Authorities through the route, and already has a plan for delivery of communicable disease training within communities as is required under the ESAP. The training will be delivered in camp affected settlements, which is planned through to the end of December 2017. The Terms of Reference for the Public Health Training have been provided for comment by the IESC and EBRD. The comments include the requirement for additional information regarding health data in the camp areas to ensure that the reported processes for managing risks along the pipeline route have minimised the spread of communicable diseases. The Training program is on track for commencement of implementation.

Occupational Health Audit Reports were shared together with the ESAP and ESDD comments. Those Audit Reports were also shared officially with Construction Contractors for their action.

Any potential effects of population influx, with the consequent potential impact of exposure to communicable diseases, appears to have been mitigated, although not likely to have been through local employment practices as was assessed through the ESIA process. CINAR's third party quarterly monitoring has shown that local employment rates are lower than was targeted across all LOTs (excluding Offshore), reported to be due to lower than expected availability of working age, population and due to retrenchment processes of the existing local unskilled manpower.

2.4.4 Emergency Preparedness and Response

Environmental Emergency Response Plans have been developed by Construction Contractors based on the requirements of the Guidelines for Contractors specification developed by TANAP.

The Security and Emergency Response departments of TANAP have undertaken training with relevant emergency response agencies and Construction Contractors on site, initiated by TANAP. Major incidents are to be prevented and contained by security systems including pipeline intrusion inspection system, which can be operated on any station or route (this will be moved to the Main Control Centre functions during the operations phase), as documented in the Security Management Plan. Fence and Building Intrusion Detection systems are in place on all AGIs, and regular walkovers and flyovers are in place of the pipeline for the construction phase. Unannounced emergency response drills and evacuation occur across the Lots on a regular basis. Emergency contact cards are given to all workers and visitors upon site entry.

The offshore ERP has been prepared. However, the site visit identified that the Plan did not identify environmental emergency response team (EERT) members. As the offshore construction activities had commenced at the time of the monitoring visit, these team members should have been identified and included within the ERP. The IESC raised concerns that in the event of an emergency situation, the lack of identified EERT members may cause issues and time delays in notification and responsive action. TANAP has since informed the IESC that although the previous version of the ERP did not contain the onshore EERT member's full details, key members were determined and both landfalls have a continuous HSE presence hence no delays could have been encountered in the event of an emergency situation.

Drills have been undertaken for the offshore work to test public safety measures (i.e. protection of other water users). Project vessels were reported to have Emergency Response providers on board, plus ARAS (a 3rd party contractor) has been engaged and can mobilise in 30 minutes in the event of an emergency. Additional protections for public safety are through implementation of two guard boats upstream and downstream of the pipelay barge and a 3rd vessel (speedboat) to intervene prior to any collision with the barge/other project vessels. Two drills have been carried out with port authorities.

2.5 Performance Requirement 5

2.5.1 Grievance mechanism

The issue of overspill (i.e. work outside the RoW by the Project) has been identified through internal monitoring and during the audit by CLOs as an issue with a growing number of grievances picked up in the Grievance management tool, OSID. Complaints include operation of heavy vehicles outside the corridor, or construction materials encroaching on agricultural lands or in drainage ditches, resulting in damage to lands, crops or infrastructure adjacent to the Project. It is understood that such overspills are partly caused by difficult terrain conditions that may entail a need to use available land for machinery and equipment storage. Construction Contractors are making compensation payments or undertaking repairs to redress these grievances by agreement with landowners. Further detailed information and analysis on the number of overspill grievances by LOT is required to follow up any systemic construction management issues; this is required under PR10, ESAP item 10.1(b).

2.5.2 RAP/LRP documentation

The completed Offshore Fisheries Livelihoods Restoration Plan (Offshore FLRP) has been developed by TANAP in line with the RAP and ESAP item 5.2, and provided to EBRD and the IESC for comment. Significant issues were clarified regarding key aspects of the document. These clarifications included the eligibility for compensation of groups impacted by the offshore construction activities during phases of Project activities. Key requirements are to develop an Addendum to the completed FLRP to identify different fishing areas used by fishing vessels based on the detailed baseline data gathered, with an overlay of the project's construction activity areas. Potential impacts to livelihoods of host fishing ground users are also to be investigated, and safety assessments made regarding travel of small-scale fishing boats to host fishing grounds. At the time of the audit, it was agreed that fish stock baseline information would also be investigated.

Additional comments were also provided by the IESC and EBRD on the completed FLRP, and the Livelihood Restoration Plan (LRP) for AGIs as required by the ESAP. TANAP has also provided the RAP Monitoring Plan to the EBRD for comment in line with ESAP requirements and other RAP/LRP documentation for information (Internal and External RAP Monitoring Reports, RAP Fund Management Procedure).

2.5.3 RAP/LRP implementation

Implementation of the FLRP has commenced, following dredging activities 14 June – 13 July 2017, with the first round of fuel compensation provided to 23 vessel owners and users following 27 applications for subsidies. Findings of the IESC, as described by the offshore team during the site visit, include that with an anticipated extension of Project activities due to weather conditions in the Marmara crossing, it can be anticipated that if weather delays installation, there might be additional restrictions on fishermen's access and fuel subsidy payments. In September 2017, additional impacts were expected to occur to fishing communities, and as a requirement of the FLRP, disclosure of was immediately made on 7th-8th September, prior to the commencement of the construction impact. Thus, proactive stakeholder engagement could be achieved to ensure that those fishermen not present during the summer season are targeted for inclusion for compensation in later construction periods. Following disclosure activities, the number of vessels applied for the diesel support program increased from 23 in the summer season to 43 in fall season. TANAP will need to ensure that with an anticipated extension of Project activities in the Marmara crossing for the fall construction season (e.g. due to poor weather/other construction delays), it can be anticipated that there might be additional restrictions on fishermen's access to fishing grounds, and so extended fuel subsidy payments required; TANAP will need to maintain its disclosure to those affected.

Approximately 40% of the ROW of LOT 2 has been reinstated as at the time of the site visit (i.e. mechanical completion and biorestoration phases). The Land Exit Procedure commences at the completion of biorestoration, i.e. the formal Land Exit Procedure has not yet commenced for the Project. However, there has been a trial of the Land Exit Procedure for lands rented by the Construction Contractor (e.g. land which had been used for a pipe stockyard at Orenbel). These arrangements fall outside TANAP's direct responsibility as this rental land is by agreement with Construction Contractors and landowners. Sample land entry and exit protocols for rented lands were sighted by the IESC for this case; photographic evidence is attached to protocols, along with signoff by land shareholders, land users, the relevant Muhtar and the Construction Contractor. The land exit will be completed with a team of members including CC, TANAP and BOTAŞ LRE, offering the opportunity to share lessons between all parties in undertaking this activity.

2.5.4 Monitoring

The RAP has been prepared with a number of additional documents to fill gaps between Turkish and international Lender requirements. This includes preparation of the RAP Monitoring Plan, which has been provided to the EBRD and IESC for comment (ESAP item 5.3).

Internal and external monitoring has been undertaken in line with the RAP Monitoring Plan and has identified a number of key issues requiring redress. From a process perspective, an action plan for addressing issues identified through the monitoring process is recommended, e.g. consolidated with internal issues for follow-up.

Internal RAP Monitoring data supports the findings of the third party monitoring (by CINAR) regarding low potential and take-up of employment by local people as a livelihood restoration measure. This is a key finding regarding suitability of Project employment as a transitory livelihood restoration option for local people with the potential for vulnerability, as is described in the LRP for AGIs. TANAP Project provides additional livelihood support through the RAP Fund and livelihood assistance programs articulated in the LRP for AGIs, and monitoring data should be tracked to ensure that people identified as vulnerable/potentially vulnerable are prioritised or targeted for additional livelihood support.

It is acknowledged that there is no single database with all project-affected people in place. BOTAS and TANAP hold a database detailing landowners compensated for crop payments under the land acquisition process using Turkish national requirements, in the Land Acquisition Information System (LAIS). Another database held only by TANAP details payments made through the RAP Fund, while OSID records all engagements with stakeholders and any grievances lodged.

TANAP has acknowledged that targeted engagement and monitoring is required to identify particular groups that may have not been covered by previous surveys and engagement activities (e.g. due to their unavailability at the time, lack of knowledge of the relevance to their situation). TANAP has commenced development of a vulnerability-based database with the data being collected by TANAP Site Social Impact Specialists throughout RAP-specific stakeholder engagement meetings. The Vulnerable Group Checklist has been developed to assist in identifying and reaching the vulnerable people who are not self-identifying to the Project through broad-scale information dissemination and engagement activities (e.g. public meetings, seeing notices on boards).

Identification of vulnerable people has commenced and will continue into Q4/2017 (and beyond). The existing internal and external monitoring processes and grievance redress mechanism (OSID) enable TANAP to understand whether sufficient compensation has been applied to restore livelihoods of agricultural livelihoods (through registration of complaints as 'Loss of livelihood and/or Expropriation and Land Acquisition' categorisation).

Monitoring by CLOs has identified that there is a general feeling of 'consultation fatigue' in affected communities, yet the vulnerable groups and/or those who have not self-identified to date are not sufficiently understood to be able to monitor the outcomes of RAP implementation as is required by the RAP Monitoring Plan. Targeted comparison is required of BOTAS payment records and TANAP's OSID (grievance and engagement records) and the RAP Fund database to identify where project-affected people for prioritisation of engagement, mitigation and monitoring activity.

2.6 Performance Requirement 6

2.6.1 RoW Restoration

The Project has substantially progressed reinstatement of the RoW throughout Lot 2 Spread 3, which includes some of the most challenging terrain due to steepness and the presence of shallow soils. Approximately 99% of the pipelay and excavation in Spread 3 has been completed and 40% of Lot 2 has had reinstatement works completed although no sections of the RoW have been subject to formal land exit protocols where contractor obligations for reinstatement are verified and completed. Restoration works are developed through contractor-developed plans with the required restoration mitigation works and designs prescribed through the site alignment plans. The alignment plans include specification of erosion controls, including permanent and temporary slope breakers, the use of hydro-mulch, jute matting, access points and seeding specifications. Change requests are required for approval prior to changes to the agreed alignment plans being implemented.

Restoration validation surveys are completed by the contractor following completion of each section of RoW to verify works have been completed in accordance with the approved design. Post restoration monitoring will continue for a further 2 years before all contractor responsibilities for the RoW are handed over to TANAP.

TANAP showed drone video footage of the restoration works that have been completed through Lot 2 Spread 3 critical habitat that occurs within the Anatolian Gypsum Steppe habitat type where the shallow karst soils present significant restoration challenges. The drone video footage and the site visit to completed reinstatement at KP 416 and 417 demonstrate the implementation of effective restoration works. Drainage and erosion control measures including slope breakers, hydro-mulch and jute matting were observed to be well constructed and completed to a high standard. Examples of additional erosion control measures were observed where contractors had implemented additional measures based on site specific conditions.

The site visit included an inspection of restored additional land areas, adjacent to the RoW, that were required for construction purposes including pipe storage and rock fill placement. The contractors negotiated the additional land areas with local land-owners as required for construction purposes. The environmental, including biodiversity, assessments of the additional land areas were subject to pre-clearance surveys in line with the RoW assessment process.

Project access control to restored sections of the RoW was observed to be well managed and in accordance with design. However, public access to the restored RoW is not always controlled and there was some section where farm vehicles and machinery have accessed restoration works. The IESC recognises that preventing public vehicle and machinery access over restoration sites is difficult to control as no barriers are maintained post restoration. However, if access is concentrated in specific areas then this could impact restoration performance. It is recommended that contractors and TANAP maintain records where high levels of public access on restored sections of the RoW have occurred. These records can be used to compare against post restoration monitoring data and may also trigger consultation with neighbouring land users/owners if access in specific locations is causing significant concerns that restoration works may be substantially impacted. TANAP may also consider the installation of signage on areas where public access may impact successful restoration or other public awareness campaigns to minimise impacts to restoration areas during the initial period when vegetation is being established.

The issue of implementation of topsoil management during construction activities was identified at the Block Valve 12 construction site on Lot 2 Spread 3. Topsoil was not stored with adequate separation from excavated sub soil material and there was no use of geo fabric or other measures to ensure topsoil is efficiently managed. This issue is discussed in further detail in section 2.1 above.

2.6.2 Critical habitat

The IESC visited two freshwater critical habitat sites in Lot 2 Spread 3 and identified a range of issues regarding the management and monitoring of these sites during periods of extended construction. These issues included the need to maintain construction related mitigation measures as outlined in pollution control procedures and critical habitat management actions specified in the Biodiversity Action Plan (BAP). These issues are discussed in detail in section 2.1 above.

From a documentation perspective, TANAP has assessed impacts to Biodiversity through the ESIA and the Biodiversity Action Plan (BAP). Both documents were extensively reviewed by Sustainability in the Environment and Social Due Diligence report of June 2017.

Previous ESDD by Sustainability found that the ESIA and BAP had failed to effectively assess impacts to critical habitat, priority biodiversity features and natural habitats in accordance with the requirements of EBRD's PR6 and the IFC's PS6 including the relevant PS6 guidance notes. The assessment partially included the application of the mitigation hierarchy relevant to protection of biodiversity but failed to quantify residual impacts including the calculation of net habitat losses, net gains and did not identify offset measures to compensate the residual impacts.

To address this deficiency, the Environmental and Social Action Plan included the requirement for TANAP to develop and implement a Biodiversity Offset Strategy (BOS). The Strategy is required to:

(a) Quantify Residual impacts to Priority Biodiversity Features and Critical Habitats, as defined in the BAP (Rev P3-10);

(b) Identify specific biodiversity management actions, in accordance with the mitigation hierarchy, to achieve No Net Loss / Net Gain outcomes of these species and habitats of conservation importance; and

(c) Quantify No Net Loss / Net Gains based on the successful implementation of the above actions over a reasonable timeframe.

A BOS dated September 2017 (Report No. 1786851/9059) developed by Golder Associates was reviewed by the IESC following the site visit. The BOS is strategic in that its stated purpose is to provide a practical and achievable offset scheme for TANAP and to create a framework to direct actions required to offset Project related residual impacts to biodiversity in accordance with the specific requirements and standards of EBRD's PR6 and the IFC's PS6.

The BOS presents a methodology for calculation of the residual impacts and the biodiversity offset requirements to achieve a net gain in Critical Habitat and no net loss of Priority Biodiversity Features and Natural Habitats. The BOS presents the quantification of the residual effects of the Project and discusses the requirements for further data gathering to refine the calculations and to address the limitations of the quantified assessment.

The strategy identifies potential offsets and additional conservation actions in accordance with good international practice to achieve No Net Loss or Net Gain outcomes relative to the residual affects identified for Natural Habitats, Priority Biodiversity Features and Critical Habitats. The strategy defines the approach to stakeholder engagement, monitoring and adaptive management, including mechanisms that allow re-calculation of net loss and gains and facilitate adjustments to the offset strategy to achieve the stated objectives. The BOS provides a conceptual framework that will guide TANAP towards the development and implementation of a detailed Biodiversity Offset Plan as a part of TANAP's Environmental and Social Management System.

The BOS meets the key requirement of EBRD PR6 and the ESAP to develop a draft offset strategy by the end of Q3 2017 with the aim of publicly disclosing a BOS prior to the EBRD Board Meeting decision on the TANAP loan transaction.

2.6.3 Assessment of Changes to Offshore Construction Methods

The E&S monitoring visit to the offshore construction component of the Project identified that the construction method for pipelay across the Sea of Marmara was subject to separate assessment of dredging works with potential to result in increased sediment loads which may pose risk to nearby seagrass beds. These impacts were assessed through additional studies undertaken after the ESIA and which resulted in a range of management actions to protect identified sea grass habitats. The disclosed Offshore Construction Environmental Management Plan does not define the use of dredging methods and does not describe the management action and monitoring measures that have been implemented by the offshore construction contractor to ensure the protection of seagrass beds and other identified values. The monitoring visit has verified that measures to manage and monitor increased sediment in sea water from dredge activities were undertaken during the dredging that has occurred to date.

2.7 Performance Requirement 8

2.7.1 Assessment and Management of Impacts on Cultural Heritage

TANAP continues to manage its cultural heritage obligations with on-site archaeologists working at times of land clearance and excavation, and initiating investigation by the Ministry of Culture and Tourism, as is required under the Chance Find procedure, and instituting route variations if required by the Ministry. Archaeological specialist oversight is undertaken during all works, including the beach-pull site at the Anatolian landfall, currently active on the Marmara Crossing. Construction Contractors additionally reported provision of training by the Environment team on Cultural Heritage, which is reported on to TANAP in line with reporting requirements.

There are no ESAP items relevant to Cultural Heritage.

2.8 Performance Requirement 10

2.8.1 Stakeholder Engagement

The Stakeholder Engagement Plan (TNP-PLN-SOC-GEN-001), being implemented by TANAP, guides stakeholder engagement for the Project. This document has been disclosed on both TANAP and EBRD websites.

During the site visit, TANAP social impact specialists and Construction Contractor CLOs reported evidence of 'consultation fatigue' within project-affected communities. While TANAP has been paying attention to selection of settlements for each monitoring study/site visit to avoid multiple subsequent visits to the same locations. Additionally, this also suggests (without analysis of detailed engagement records) that TANAP should continue its efforts of more targeted engagement activities, rather than reaching the same individuals or groups with Project information. Findings on PR5 Monitoring also discuss this issue; targeted analysis of the available Project databases (OSID and BOTAS' Land Acquisition Information System) is required to identify those project-affected people most likely to be vulnerable and/or affected by loss of agricultural livelihoods, and those that have not been targeted or attended Project information sessions. This should then inform implementation of the SEP including its Annex-2 RAP-specific Stakeholder Engagement Implementation Guideline drafted by TANAP and provided for comments to EBRD.

Site visit and public consultation feedback from affected communities also provided insight into contacts considered most relevant to project-affected people. Responses included BOTAS, Construction Contractors CLOs and TANAP representatives. This is understandable with divisions of roles as defined in TANAP SEP and RAP documentation. However, this feedback suggests that targeted engagement will be required prior to completion of the BOTAS and CC roles to ensure that stakeholders are clear that ongoing and ultimate Project responsibilities belong to TANAP. This includes resolution of any post-Land Exit process grievances that may emerge, where BOTAS and Construction Contractors are no longer providing CLOs/staff responsible for Project activities (other than defined biorestoration measures/contract guarantee period monitoring). Annex-2 of SEP; RAP-specific Stakeholder Engagement Implementation Guideline requires strengthening to address this gap.

2.8.2 Operational Grievance Mechanism

TANAP continues to use OSID (the Online Stakeholder Interaction Database) to track both internal and external grievances. The total number of external grievances received has been provided by TANAP with quarterly Internal Monitoring Reports. The ESAP requires reporting by the end of September 2017 of summary grievance data, which is then required under ESAP item 10.1 to be reported to communities along with the measures taken by TANAP and Construction Contractors to address those commonly received and rectified. TANAP Q3 monitoring data continues to show that the top four construction phase grievances received relate to damage to assets (land & crop, road, irrigation channels and pipes, domestic waterline), primarily private assets. There has been an increase in the number of RAP Fund related registrations, which correlates with the commencement of RAP Fund information disclosure, and indicates effectiveness of the grievance mechanism.

The Grievance Mechanism is operational; Construction Contractors demonstrated records of grievances received from the community. These are received either verbally or in writing and majority are registered into OSID (therefore reported as required to TANAP). Complaint resolution is undertaken with relevant internal departments and through site inspection with complainants.

Commencing January 2017 four appeals committees were established. Each Lot has a separate appeals committee with Lot 4 and the offshore construction activity covered jointly. Academics of local universities and experts from local and civil institutions comprise the membership of each committee. When grievances cannot be resolved these are escalated to the Appeals Committee for that area. Appeals Committees have successfully heard and resolved complaints relating to damage to the environment, public and private assets. Details of the Committees were publicly disclosed through the brochure: "Further Entitlements on Land Acquisition and TANAP RAP Fund for Additional Economic Support Information Brochure 2017" (i.e. the update to the GLAC brochure).

During the small sample of site visit community interviews, community members confirmed that they understood that the Appeals Committee had been established and was available to hear escalated grievances; not all communities visited had had any complaints escalate to their Committee, so it is not possible to say whether the Committee functions are well understood throughout the entire project. The Committees' terms of reference exclude it from hearing labour and expropriation laws, which can be resolved through existing Turkish national legal frameworks. As at September 2017, 12 grievances had been escalated to Appeals Committee for resolution. Establishment and operation of the Appeals Committees has been an additional initiative to strengthen Project's existing Grievance Mechanism.

2.8.3 Information Disclosure

The Stakeholder Engagement Plan (TNP-PLN-SOC-GEN-001, including Annex 1, Construction Phase implementation), being implemented by TANAP, guides stakeholder engagement for the Project. This version of the document is disclosed on the TANAP website.

TANAP is required under the ESAP to provide additional detail to the EBRD regarding the modality of disclosure to affected communities on key project documents including ESMPs. TANAP reports that the additional RAP requirements were disclosed to affected communities through distribution of the TANAP Guide to Land Acquisition and Compensation (GLAC) brochures. Further, Turkish versions of all RAPs (including Addendum and RAP for AGIs) were published for physical disclosure in every province along the pipeline; one copy of each RAP was delivered in June 2017 to 20 governorships of all provinces and 63 sub-governorships in each district. Disclosure is continuing for key documents including: the Fisheries Livelihood Restoration Plan (disclosed online and in print in Turkish language); and a summary of the 1st Semi-Annual External RAP Monitoring Report (disclosed online). The IESC notes that TANAP has commenced its public disclosure and consultation meetings to engage with stakeholders on the RAP Fund, eligibility requirements and how to access payments.

3. EBRD AUDIT TABLE – DETAILED SITE VISIT FINDINGS

Annex 2- Environmental and Social Assessment: Compliance Summary Table

Introduction

The Compliance Summary provides a systematic review of project compliance with the EBRD Environmental and Social Policy, as defined through the applicable Performance Requirements (PRs). Scope of compliance is all PRs applicable to non-FI projects. The review is intended to provide a baseline against which to judge future performance of projects through the annual environmental and social reporting process.

Between 2 and 10 indicators are identified for each of the applicable PRs: 1, 2, 3, 4, 5, 6, 7, 8 and 10.

Guidance

For all PRs (Indicators with whole number references) provide a summary of overall compliance with the PR. Justification for any derogation from a PR should be summarised and supporting documents referenced. For each indicator within a PR, please complete the 3 steps below:

1) Decide whether the indicator is applicable. For Category A and B projects the starting point is that all indicators are applicable unless the project has no significant aspects relevant to the indicator (i.e. no risks), in which case the indicator should be scored "NA" and a brief summary of the reason given. For Category C projects, the starting point is all indicators are NA unless the project has a significant aspect relevant to the indicator (i.e. there is a material risk).

2) Decide whether an opinion is possible. If not (for example if the indicator will apply, but it is too early in the project) score as "NOP" and provide a brief summary of why. Where lack of opinion represents a material omission to the review refer to where this is addressed in the report and summarise any recommendations.

3) Score the indicator as follows and provide brief justification.

EC	Exceeding Compliance: The project has gone beyond the expectations of EBRD's PR requirements. EBRD should be able to use projects rated EC as a role model for positive Environmental and Social effects.
FC	Fully Compliant: The project is fully in compliance with EBRD's requirements, and EU and local environmental, health and safety policies and guidelines.
PC	Partial Compliance: The project is not in full compliance with EBRD's requirements, but has systems, processes or mitigation measure in place which are working towards addressing the deficiencies.
MN	Material Non-compliance: The project is not in material compliance with EBRD's requirements, and the systems, processes and mitigation measures in place are not working towards addressing the deficiencies.

4) Comments/Issues: Provide a brief commentary on the relevance of this requirement for the project and an explanation of the chosen score.

5) Actions Required: Where applicable, briefly describe any actions required by the client to achieve full compliance with each requirement. Where a relevant action is included in the ESAP for this project, please provide a reference to the ESAP.

Note: The Material Non-compliance score (at both Indicator and PR level) has significant implications for Project approval and requires particular care. In judging whether the measures sufficiently address deficiencies the consultant should consider in a structured way both the level of residual (post-approval) risk and the level of confidence that the Project can successfully bring the issue into compliance with the Policy through the ESAP. The table below illustrates the approach to be taken.

Risk				
	High	PC	MN	MN
	Medium	PC	PC	MN
	Low	FC	PC	PC
		High	Medium	Low
		Confidence		

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
1	Assessment and Management of Environmental and Social Impacts and Issues			
1.1	Environmental and Social Assessment	PC	The environmental and social impacts have been assessed through a systematic process applied for all Project components as identified through the ESIA scoping and through engagement with key Government stakeholders in Turkey. The ESIAs have been developed to meet national standards, TANAP policy and guidance provided by international institutions such as the IFC, EBRD and EU. Offshore Construction Impact Management Plan (CIMP) and Emergency Response Plan have been reviewed and ESMPs for the offshore construction Contractor were publicly disclosed by TANAP. The IESC reviewed the latest revision of the disclosed offshore CC (SPK) CIMP (Rev P4-0) and determined that it lacks specific detail relating to finalised construction methodology and equipment. The adequacy of these documents could be significantly improved. It is recommended that the Construction Impact Management Plan be updated to reflect current status of work and to provide information where detail is lacking or is yet to be determined/considered. Mitigation measures such as sediment	• Revise ERP to include EERT members. • Update CIMP to reflect current status of work and to provide finalised information where detail is lacking and or is yet to be determined/considered. Update Pollution prevention plan in a way that mitigation measures such as sediment control should also be included, and trigger values documented.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			control should also be included, and trigger values and response actions documented. The ERP fails to identify environmental emergency response team (EERT) members. As the offshore construction activities had commenced at the time of the monitoring visit, these team members should have been identified and included within the ERP.	
1.2	Environmental and Social Management Systems	PC	At the commencement of the Project, TANAP employed a three-tiered contractor structure to implement the Project, with an Engineering, Procurement, Construction and Management (EPCM) contractor managing the selected Construction Contractors in the field. TANAP modified this structure to an integrated two-tier organisation (with TANAP and Construction Contractors), removing the EPCM contractor from the organisational structure. TANAP ESMS documentation has since been updated to reflect the change in organisational structure and is reflected in construction contractor documentation. The construction contractors' ESMSs are comprehensive and well established with regular monitoring, reporting and inspections taking place across the construction Lots. Construction contractor environmental and social responsibilities are well understood which is reinforced by	• An improvement in monitoring is required to ensure gaps in commitments are adequately identified, corrective actions are implemented and to ensure that the monitoring frequency is regularly reviewed and adjusted to allow for extraordinary and/or additional monitoring of sensitive areas, critical habitats and top soil storage area in case of adverse weather conditions that may jeopardise the effectiveness or mitigation measures or require strengthening existing arrangements to account for unforeseen impacts. This will

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			adequate numbers of skilled staff to maintain high levels of implementation and management. However, the site visit identified a number examples (as outlined further in PR3, PR4 and PR6 discussions) where there was inconsistent implementation of environmental and social controls by construction contractors. The inconsistent implementation of mitigation measures indicates potential deficiencies in the internal and third party E&S monitoring conducted across the construction Lots. The site visits of the reinstated RoW raised concern regarding TANAP and contractor failure to identify gaps in ESIA and MP commitments relating to public access to sites, health and safety, erosion control and general housekeeping. Additional refresher training and communication between TANAP, Construction Contractors and third party monitors is required to ensure that gaps in commitments are adequately identified and corrective actions are implemented when gaps in commitments are observed. It is also recommended that TANAP critically review the current level of resources used by Construction Contractors and third parties monitoring the project. The IESC understands that TANAP issue NCRs or formal letters when non-compliances are identified however, responses to findings must be addressed in a timely manner especially in relation to high priority observations such as lack	also ensure that periodic monitoring of delivery of ESIA commitments and MPs is completed adequately. This may be facilitated through the implementation of refresher training and improved communication between TANAP, Construction Contractors and third party monitors. Responses to findings/observation identified during monitoring must be addressed in a timely manner, particularly in sensitive environments such as FCH and CH.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			of erosion control measures and accumulation of waste in critical habitats as observed during the latest site visit.	
1.3	Environmental and Social Policy[2]	FC	TANAP has a documented Environmental and Social Policy. TANAP subcontractors also have documented Environmental and Social policies.	
1.4	Environmental and Social Management Plan	PC	TANAP has developed and implemented a detailed suite of Environmental and Social Management Plans (ESMPs) for the Project. Construction contractor ESMPs have been reviewed and approved by TANAP and are aligned with TANAP ESMPs. The IESC reviewed alignment sheets for detailed information relating to installed erosion control measures in accordance with Construction Contractor Erosion, Reinstatement and Landscaping Management plans. During the site visit of Lot 2, Spread 3, an inconsistency between the alignment sheets and the classification of installed erosion control measures was observed. This inconsistency	• Offshore ESMPs of Construction Contractor to be updated to reflected finalised methodologies and equipment used for offshore construction activities such as trenching and dredging.

[2] Where the project represents a substantial extension to the client activities, confirm that Policy and supporting management systems and plans are appropriate for the new activities.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			was raised by the Lot 2 Contractor, as a formal Deviation Request (No.109) and it is proposed to be addressed through making the appropriate corrections in the as built alignment sheets. Offshore pipeline hydrotesting is scheduled to occur in March 2018. A hydrotesting plan is yet to be developed however the requirement has been clearly identified within the TANAP Project requirements and Contractor deliverables. Once hydrotesting planning has been completed to incorporate corrosion parameter analytical data, the hydrotesting plan will be finalised and implemented. An improved and more comprehensive Construction Contractor document review process is proposed to be restarted to ensure that ESMPs such as the hydrotesting plan, CIMP and ERP are developed, reviewed and approved as adequate ahead of construction activities.	
1.5	Organisational Capacity and Commitment	PC	TANAP has a defined organisation structure which is suitable to implement a Project of this size and magnitude. Sufficient environmental and social personnel have been employed to implement the ESMS and manage environmental and social issues that are present on the Project.	• Refer to PR 1.2

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			Refer to discussion in 1.2 regarding discussion on organisational structurearrangements for additional monitoring and improved communication to contractors on high-risk items such as sensitive areas, critical habitats, top soil-storage areas, etc.	
1.6	Supply Chain Management	FC	The EBRD PRs recommend that clients ascertain whether licenced disposal sites are being operated to acceptable standards. CCs at each lot visited provided evidence which demonstrates that regular site verification audits have been completed to ensure waste is disposed of at licensed waste facilities along the pipeline corridor. A diligent approach towards the selection of waste facilities/landfill sites has been adopted, particularly at Lot 2 Spread 3 which opted to send waste to a landfill over 200km away as the proposed municipal landfill was determined unfit by the CC to receive the waste.	
1.7	Project Monitoring and Reporting[3]	PC	TANAP has documented and is implementing the following monitoring activities as part of their ESMS:	• An improvement in monitoring by TANAP, CCs and CINAR in the form of refresher training is required

[3] At appraisal stage there will be limited information. Compliance assessment should address specific plans for monitoring and reporting (against for example ESAP requirements) and also consider whether there is evidence of weak monitoring/reporting by client on other relevant projects - which may reduce confidence in future performance.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			• Environmental Action Plan; • Environmental Monitoring Plan; • Social Action Plan; • Social Monitoring Plan; • Resettlement Action Plan; and • Biodiversity Action Plan. Regular monitoring and reporting of HSES requirements against stated Key Performance Indicators (KPIs) was observed. However, opportunities for improvements to overall monitoring have been identified considering the observations noted in section 2.1.3 above. Freshwater Critical Habitat 9 (KP 506), Lot 2 Spread 3 was visited during the monitoring visit. The FCH site had recently been accessed for hydrotesting purposes and left in a poor physical state. Waste and remnants from hydrotesting were scattered across the site, and physical signs of riverbank erosion was evident (from a flooding event that occurred earlier in the spring/summer). As this is categorised as a Fresh Water Critical Habitat, having destabilised and exposed soils at the river crossing exacerbates the potential for increased	across the lots to ensure that periodic monitoring of delivery of ESIA commitments and MPs is completed adequately. It is therefore recommended that TANAP ensure that the construction phase pollution control plans and procedures must be implemented and monitored during the full term of construction, including the period between various sub–contracted activities. Responses to findings/observation identified during monitoring must be addressed in a timely manner, particularly in sensitive environments such as FCH and CH.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			turbidity and related impacts to sensitive aquatic flora/fauna. It is therefore recommended that TANAP ensure that the construction phase pollution control plans and procedures must be implemented and monitored during the full term of construction, including the period between various sub–contracted activities. A lack of general housekeeping, public access to sites and health and safety issues relating to poor barricading and fencing was a recurring theme across the several of construction sites visited. For example, soil mixing was evident next to open trench at BVS 12. Top soil was not stored in a separate location to back fill material. The use of geo textile had not been implemented in this area. In addition to the above, the IESC observed a lack of site boundary delineation. The internal working site boundaries must be clearly demarcated with flagging, conduit etc. to ensure that the physical footprint does not exceed permitted requirements. During the last due diligence audit, the IESC reported the same observation, however it was noted during the latest visit that the footprint of the working areas seems to be expanding with incidences of adjacent land being used for car parking, particularly at BVS 15 (KP 510).	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
2	Labour and Working Conditions			
2.1	Human Resource Policies and Working Relationships	PC	TANAP has in place human resources policies and procedures. CCs are implementing Social MPs including Employment and Training, as evidenced during visits. Interviews with a sample of workers demonstrated a mixed understanding of contract specifications, with a tendency for local workers to be less informed about rights and responsibilities within their contracts. The Employment and Training Plan requires that job descriptions will be clearly communicated in advance (of employment) and will contain information on working conditions. While the IESC recognises that the workers have signed their contracts, interview responses suggest that these are not well understood, and the information may not be understandable and accessible to workers. Efforts to reiterate these terms should be made (e.g. provision of additional briefings/access to third party support for the unskilled groups of workers), particularly in absence of a Trade Union through which to seek support, as is the case for CCs' subcontractors. TANAP and its CCs have held bi-monthly health and safety meetings; these have included discussion on the need to strengthen fatigue management. All LOTs have been required	• Continue provision of support to explain terms and conditions of employment to new workers/workers on altered contracts (e.g. provision of additional briefings/access to third party support for the unskilled groups of workers) and deliver workforce conditions training in accordance with the Worker Engagement Plan (28.08.17).

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			to develop Fatigue Management Plans and conduct training throughout their workforces; these were due for completion 9 June 2017. TANAP has committed to sending for IESC review additional records regarding implementation thereof. Additionally, development of a Fatigue Management Plan for TANAP was required under the ESAP. This has been drafted and comments provided by the IESC and EBRD on strengthening this document and its implementation, including focus on the CCs with ongoing scopes of work, and developing effective KPIs across responsible teams. Fatigue management measures implemented by CCs as provided during the audit were reported to include risk analysis on all roles to determine suitability for extended shifts; special provisions during Ramadan (fasting period); implementing 10-hour daytime shifts and operating overtime or (reduced duration) nightshifts by permit from TANAP only. The ESAP requires preparation of an engagement program with Construction Contractors on management of overtime to be developed by TANAP. This engagement plan has been developed and is to be completed/implemented by the end of October 2017 with training to 8,000 workers on 'Work life and conditions'. While this issue is partly managed through the Working Hours plan, the effectiveness of the mitigation	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			measures is expected to be enhanced through further engagement with workers.	
2.2	Child and Forced Labour	FC	TANAP and, through its contracting arrangements, the CCs, ensure no child or forced labour is in use in the Project through employment procedures; identification (proof of age) is required at recruitment, and all workers are provided social security.	
2.3	Non-Discrimination and Equal Opportunity	FC	Turkey has ratified the core ILO conventions including on non-discrimination; TANAP requires compliance of the Project through HR policies and procedures, and regular third party reporting to government. There was no evidence of non-conformance during the site visit.	
2.4	Workers Organizations	FC	Workers Organisations are present for parts of the Project (typically TANAP blue-collar workers); all workers are able to join labour unions by paying subscription fees.	
2.5	Wages, benefits, and conditions of work and accommodation	FC	The site visit included interviews with workers at all sites and inspection of camp accommodation and facilities. Visited camp facilities appeared in line with good international industry	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			practice[4], in providing for suitable space and ablutions per worker in accommodation blocks, dining halls, recreation and laundry facilities.	
2.6	Retrenchment[5]	PC	Retrenchment has already occurred with some CCs and their subcontractors, for example, where unskilled local workers were engaged for the duration of activity in the area near their villages only, or for subcontractors with no further Projects to which their workers can be moved on to. Site visit interviews with CCs indicate that processes being followed are in line with Turkish national labour requirements, i.e. that verbal notification is firstly provided, followed up with written notification of retrenchment. Acquittance notices are prepared for each retrenched worker, which detail calculations on monies owed to the worker and the timeframes in which it will be delivered. Leaflets have been prepared detailing	• See 2.1 regarding training on conditions

[4] Workers' accommodation: processes and standards - A guidance note by IFC and the EBRD (2009)

[5] Will not be applicable to many projects at appraisal stage. However, evidence, within the last 3 years of client approach to retrenchment which is not compatible with the Policy should be taken into consideration.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			workers' rights, FAQs, and contact information for any follow up. As required by the ESAP, retrenchment plans have been developed by the CCs. These provide for the CCs policy and plans for retrenchment. Retrenchment plans for CCs include access to the CCs Grievance Mechanism however provide limited detail on any other means of receiving additional support prior/during the retrenchment process. See also 2.8.	
2.7	Grievance Mechanism	FC	TANAP continues to use OSID (the Online Stakeholder Interaction Database) to track both internal and external grievances. The total number of grievances received from within the workforce since commencement is 196, the majority of which have related to employee wage and overtime payments (46%), followed by unfair dismissal claims (22%) and working conditions (20%). A total of 20 grievances are open, 3 waiting further investigation, and 173 are closed.	
2.8	Non-Employee Workers	PC	Engagement of non-employee workers carried out by CCs is undertaken in accordance with the contractor management processes and procedures that are in place. However, it is not clear that for all workers (including unskilled workers of CCs) that employment terms are clearly understood	• See 2.6

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			and the information is understandable and accessible to workers. See also 2.1 and 2.6.	
2.9	Supply Chain	FC	Health, Safety, Social and Environmental Requirements for Suppliers and Vendors (ILF·SPC-HSE-GEN-001, Rev P2-0, 07.03 .2014) requires supplier compliance with Turkish laws and regulations including the Regulation on the Procedures and Principles of the Employment of Children's and Young Workers (#25425, 06.04.2004).	
2.10	Security Personnel Requirements	FC	The CCs sites visited during the audit confirmed that no weapons are allowed on those sites and training on Voluntary Principles and Human Rights had been implemented with security contractors, as evidenced by training records. The first was conducted in April 2017, and a second round planned for October 2017. SitePlus provides onsite security services and works with CCs to carry out periodic risk assessments as required by Community Safety MP, and have identified the top security risks and mitigation measures.	
3	**Resource Efficiency and Pollution Prevention and Control**			

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
3.1	Resource Efficiency	FC	The principles of resource efficiency appear to have been suitability identified during the ESIA process.	
3.2	Pollution Prevention and Control - Air emissions	PC	A Pollution Prevention Management Plan has been developed by TANAP and its Construction Contractors to minimise and manage pollution on the environment. During the visit of Compressor Station 5/Meter Station 2, the concrete batch plant was inspected and found to be generating substantial airborne dust. Although there is no statutory obligation or commitment to airborne monitoring at this site, it is recommended that some measurements of dust be undertaken to compare against OHS and environmental standards. The installation of dust mitigation measures in the vicinity of the batch plants is also recommended to provide further protection for worker dust exposure and to protect crops which are located within close proximity to the batch plant. As a minimum line of defence, it is recommended that all workers in the vicinity of the batch plant use dust masks (classification of masks to be informed by air quality monitoring results).	• Install dust screens around the concrete batch and ensure workers wear dust masks as minimum line of defence. Dust screen to be installed to protect crops from airborne dust emissions. Undertake OHS air quality monitoring to determine dust particulate levels in the vicinity of the concrete batch plant.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
3.3	Pollution Prevention and Control - Waste waters	FC	A Pollution Prevention Management Plan has been developed by TANAP and its Construction Contractors to minimise and manage pollution on the environment. The Project generates two main streams of waste water from its construction activities; these being effluent water generated from Project camps/facilities and hydrotest waste water. As per commitments made in the ESIA, waste water from domestic facilities is captured and treated in water treatment facilities prior to being discharged to the environment. Prior to discharge, water quality is tested to ensure compliance with Project Standards. To date, there have been no issues with treated domestic water. All water quality testing has been recorded in environmental registers. Onshore hydrotest water has been sourced from surface water bodies. Where hydrotesting has been completed, the hydrotest water is recharged from section to section and held in the pipe for no longer than 60 days. Hydrotest discharge ponds have been established however act as a secondary measure as all hydrotest water has been tested prior to discharge to the closest receiving environment (surface water). All hydrotesting activities have been recorded in registers and no non-conformances have been recorded to date.	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			Hydrostatic testing of offshore equipment and marine section of the pipeline involves pressure testing with water (typically filtered seawater, unless equipment specifications do not allow it) to verify equipment and pipeline integrity. Chemical additives (corrosion inhibitors, oxygen scavengers, and dyes) may be added to the water to prevent internal corrosion or to identify leaks. A range of measures have been proposed to minimise pollution from marine environment from hydrotesting although a hydrotesting management plan is yet to be developed within ESMPS and will require review against EBRDs PRs when completed. During operation, the collection of process waste water in the Above Ground Facilities is possible. It will be collected in impermeable storage containers and either pumped to waste water treatment plants if nearby or transferred by truck to an appropriate facility.	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
3.4	Greenhouse Gases[6]	PC	The EBRD requires that operations that produce more than 25,000 tonnes CO2-equivalent annually quantify and report these emissions to the EBRD annually, in accordance with the EBRD Methodology for Assessment of Greenhouse Gas Emissions. TANAP are in the process of developing the annual report for 2017 GHG emissions which will be issued in the first quarter of 2018.	• Issue the 2017 annual GHG Report to Lenders in the first quarter of 2018.
3.5	Water	PC	Discussion is evident in the ESIA on the need to minimise and re-use water where possible. Offshore monitoring activities and studies have been undertaken by third party consultants ENCOM which includes the following: • Marine Environmental Surveys (prior during and post construction); • Plume Modelling; • Continuous Turbidity Monitoring; and	• Pollution prevention plan to be revised to include turbidity monitory trigger values and details relating to how exceedances in trigger values are reported.

[6] Particular attention should be given to client demonstration of consideration of alternatives. Projects expected annually to produce more than 25,000 tonnes of Co2 equivalent should provide an emission inventory and plans for annual reporting.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			• Regular site inspections including marine vessels and equipment. Sea water quality monitoring studies have been carried out for Anatolian and European landfall areas. Sea water quality was assessed by collecting water samples at 4 stations in the Anatolian landfall area and 5 stations in the European landfall area. To date, there have been no incidences of exceedances in water quality parameters. Continuous turbidity monitoring has been undertaken on European and Anatolian landfall sites. Turbidity levels have been continuously monitored during offshore trenching and backfill activities. Additional studies undertaken by SPK's environmental consultant were conducted to determine turbidity monitoring locations taking into consideration physical receptors such as sea grass and the general marine environment, prevailing weather conditions, plume dispersion results and the topography of the construction area. For the Anatolian side, manual turbidity monitoring equipment was installed and for the European side, online turbidity monitoring equipment was installed. The turbidity monitoring trigger value of 13.29 NTU has been outlined in a specific Turbidity Monitoring Procedure. The adequacy of this procedure including the process of reporting	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			exceedances of the trigger values cannot be determined by the IESC as it lacks sufficient detail. To date, the turbidity monitoring results have exceeded the trigger value of 13.29 NTU on a number of occasions with readings exceeding 270 NTU during construction activities and on non-construction days. As outlined in the SPK High Online Turbidity Reading Report (SPK-REP-ENV-DAR-003), significantly high turbidity readings exceeding the trigger value of 13.29 were observed from the online monitoring device for the European side starting from July 30th onwards. To investigate further, sea water samples were taken at five points on 28th July and 12th August and sent for laboratory analysis. The results of the water analysis showed that the turbidity level was low (below 1.0 NTU). It was determined that the cause of the high readings produced by the online turbidity monitoring device for the European side was due to debris causing the wiper brush to get stuck near the turbidity sensor on the buoy. Where the trigger value was exceeded on non-construction days, it was determined that severe weather events caused the exceedance of the trigger value. Following the incident investigations, SPK have produced a number of corrective actions including regular inspection and monitoring of the continuous monitoring device to ensure that	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			bio-fouling of the sensor does not occur. The IESC noted that monitoring of data is reviewed comprehensively on a daily basis in order to immediately investigate the exceedance of the trigger values and implement the necessary actions in a more responsive manner. However, during the period in which exceedances were reported, monitoring equipment could not be accessed due to the bad weather encountered, which restricted the movement / operation of all vessels. Immediate inspection of the monitoring device has been included as a corrective action by TANAP following the exceedance of the trigger values and will occur when weather permits.	
3.6	Wastes	PC	Detailed consideration of waste streams and their impact has been provided in the ESIA. CCs have developed individual waste management plans which align to TANAPs. Each plan reviewed clearly defined responsibilities; accountable personnel; waste streams; waste management techniques; application of waste management strategy; reporting; training and monitoring requirements. TANAP and CCs' comply with Turkish Legislation for waste disposal. Waste contractors are being utilised to transfer waste to the nearest municipality landfill and disposed of unless the waste facility is deemed unsuitable. In the case that the waste facility is deemed unsuitable, an alternative waste facility is	• Environmental tool box is required to provide a refresher session on waste segregation and recycling commitments across sites.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			used which is better equipped to receive the waste. Recyclable waste materials are segregated into specific bins and disposed of at appropriate facilities licenced by the applicable Ministry. Hazardous wastes are disposed of by a licenced waste disposal contractor with verified applicable permits under Turkish legislation. Medical waste is classified as a hazardous waste and is collected directly from medical facilities and disposed of by a licenced waste disposal contractor with verified applicable permits under Turkish legislation. Chain of custody records are held by TANAP and CC which confirm waste has been disposed of at an appropriate facility. The IESC observed some waste mixing in waste segregation bins on sites, such as oily rags in general waste bins and poor segregation of recyclable materials. A refresher on recycling and waste segregation is recommended via tool box talks etc. to ensure that waste is segregated as per commitments made in ESIA and MPs. As discussed in PR 1.6, EBRD PRs recommend that clients ascertain whether licenced disposal sites are being operated to acceptable standards. Evidence has been reviewed which confirms that TANAP has conducted site verification audits of licenced waste disposal facilities along the pipeline route to	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			ensure that Project generated waste is being disposed of appropriately by the contractor.	
3.7	Hazardous Substances and Materials	FC	As per the requirements of both Turkish and EU legislation, TANAP utilises licenced contractors to transport and dispose of hazardous waste. Evidence has been reviewed which confirms that TANAP has conducted site verification audits of licenced waste disposal facilities along the pipeline route to ensure that Project generated waste is being disposed of appropriately by the contractor.	
4	Health and Safety			
4.1	Occupational Health and Safety	PC	<u>Incidents and fatalities</u> During the last due diligence visit, the IESC highlighted lifting activities exemplified by a fatal lifting incident and several LTIs as a significant area for H&S improvement. A review of the Project incident database during the latest monitoring visit identified approximately 53 near misses and first aid / lost time injuries relating to lifting operations at the time of visit, demonstrating that lifting operations remain a high-risk activity requiring further supervision. TANAP must ensure that Lessons Learnt documents for incidents remain to be shared with all	• TANAP must ensure that JSAs and control measures are developed, implemented and fully understood by all Construction Contractors for all applicable tasks and golden rules cards fully understood and implemented prior to tasks being performed. • Emergency response actions must be reviewed following the fatal incident (Heavy Machinery Strike)

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			lots and stations, and corrective actions are followed up and implemented. Due to the continuing trend of lifting operation incidents and near misses, TANAP must consider further training and checking of worker competency. The Project has recorded 2 fatalities since March 2017, with a total of 8 fatalities since commencement of the Project. Detailed incident analysis of each event was undertaken. A range of corrective and preventative actions were implemented as a result of these detailed incident investigations. However, recurring trends of root causes such as lack of training and preparation of risk analysis in the form of JHAs have been identified for fatalities and major incidents.	at Lot 1 to ensure that sufficient medical response can be provided to IPs in the event of an incident.
		PC	Comprehensive risk assessments have been conducted for all Project activities with the risk assessments informing subsequent control actions. A range of safety systems have been implemented by TANAP and the Construction Contractors including Method Statements and Safe Work Procedures. High risk work activities such as pipe lifting, welding and working in confined spaces was observed witnessed with safe practices implemented as per the safety systems. Additional H&S supervisors were on ground during high risk work	• Install dust screens around the concrete batch and ensure workers wear dust masks as minimum line of defence. • Undertake OHS air quality monitoring to determine dust particulate levels in the vicinity of the concrete batch plant.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			activities showing a beyond compliance and diligent approach to OHS. Excellent use of H&S signage around sites and offices was observed including hydration charts in toilets. Site visit indicated good housekeeping and good use of PPE. During the visit of CS5/MS2, the concrete batch plant was inspected. Despite being exempt from EIA conditions, air quality monitoring for OHS requirements is recommended due to dust generation. The installation of dust screens as a secondary measure is also recommended to provide further mitigation for worker dust exposure and to protect crops which are located within close proximity to the batch plant. As a minimum line of defence, it is recommended that all workers in the vicinity of the batch plant use dust masks (class to be informed by air quality monitoring results). CS5/MS2 demonstrated excellent use of clearly defined parking bays, however, as the construction work continues, and the work force population increases, the possibility of H&S incidents involving pedestrians is increasingly likely. It is recommended that clearly defined pedestrian footpaths are installed around the site with clear demarcation in the form of bunting/barricading and signage.	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
4.2	Community Health and Safety	PC	Construction Contractors have developed their own management tools and procedures (pursuant to contracts, ESIA commitments and TANAP's ESMP), which have been approved by TANAP. The Community Safety MP includes awareness of communities and preparedness of Project staff in managing potential community H&S risks. TANAP conduct periodic monitoring of the Construction Contractors' Community Safety Management Plan implementation. Cinar additionally undertakes third party independent monitoring. During the last due diligence visit, variation between site management practices was evident between different Construction Contractors, with varying standards of security of site access across the different Lots visited. Varying standards of security of site access was a recurring theme during the latest monitoring visits with variations across the Lots including: fencing, signage, open pits and potential hazards. TANAP reports that trench registers are being kept for the entire route, including the barricading status of open trenches, however, sections of open trench without barricading was observed during the visit. Pipe strings supported by earthen mounds rather than timber skids was also observed on a number of occasions which pose H&S risks. More stringent	• More stringent monitoring to be applied across constructions Lots by TANAP to ensure satisfactory and comparable standards of protection of public safety and management of site access.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			monitoring is to be applied across constructions Lots by TANAP and Construction Contractors to ensure satisfactory and comparable standards of security of site access and H&S issues. In alignment with a key construction phase project risk, there was evidence of strong management of potential road safety impacts to both workers and communities. Evidence was observed which demonstrates that TANAP/Construction Contractors have held community safety meetings, including with women and children on trench access. Concerns were raised about road safety but no accidents involving communities were reported in community meetings attended by the audit team. Indications of effectiveness of training provided to communities on public health include reports to the CC on project drivers travelling at speed through villages; response to this complaint was managed through the grievance mechanism. Medical facilities are provided at CC camps and were inspected during the site visits (Kelkit, Cadirkaya and CS5/MS2 camps). Camp doctors and health professionals are providing care to workers, while additionally providing support to local communities using the Project ambulance, where this is closer than public health services.	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
4.3	Infrastructure, Building, and Equipment Design and Safety	FC	A number of block valve stations (BVS) were visited during the monitoring visit. Once operational, the BVSs will be controlled remotely by TANAP employees. The mechanical integrity of the pipelines will be systematically checked via intelligent pigging systems. A SCADA (Supervisory Control and Data Acquisition) System will be utilised once the pipeline is operational which will additionally collate leak detection data for review.	
4.4	Hazardous Materials Safety	FC	ESMPs such as the Pollution Prevention MP have been developed which includes the management of hazardous materials and selection of chemicals required during the Project construction to ensure compliance with ESIA commitments. CCs have developed individual Pollution Prevent Management Plans to align with TANAP's document. Construction phase management controls discussed in the ESMPs have been implemented to prevent impacts from Project related activities which may result in harmful exposures or degradation of environmental values that are important in maintaining community health. This includes controls to prevent the contamination of soil and water, minimise spill risks and prevent impacts to livestock.	
4.5	Product and Services Safety	N/A	Not applicable to this Project.	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
4.6	Traffic and Road Safety	FC	Given the scale of the Project and the reliance on vehicles to access the pipeline route, vehicle and road safety was identified as one of the biggest health and safety risks. Detailed ESMS documentation has been developed relating to vehicle use and journey management. Mitigation measures installed on all project vehicles including GPS tracking and vehicle cameras are still being fully utilised across all Lots visited. The traffic management plan has been very well implemented with appropriate use of signage across all construction Lots. GIIP was observed with respect to community involvement of traffic and road safety. Training in project affected communities has been undertaken throughout the construction phase which has included training programs for women and children, facilitated by CC and TANAP social staff.	
4.7	Natural Hazards	FC	Detailed assessment and design studies were conducted for seismic risks along the pipeline route. Where the pipeline crosses known fault zones or is in high seismic risk areas, specific designs are utilised to allow for potential shifts in the land surface. Specialist international experts were employed to design the seismic crossings. Design drawings were observed during the site inspection.	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			Section 8.1.3 of the ESIA also considers impacts associated with slope instability in the design of the pipeline route.	
4.8	Exposure to Disease	PC	Construction contractors' Community Safety MPs make commitments to provide periodic communicable disease training to workers and training on worker interactions with community members. The Community Safety MP requires that the Construction Contractors prepare studies on incidence of communicable diseases in affected Provinces, based on epidemiological information available to ensure that all precautions are taken to prevent the transmission of such diseases due to the presence of workers. Engagement is required by Construction Contractors with local health authorities to agree appropriate mitigation strategies as required. This is reflected in Construction Contractors' MPs, although epidemiological studies are not being conducted; rather, TANAP is working with Health Authorities through the route, and already has a plan for delivery of communicable disease training within communities as is required under the ESAP. The training will be delivered in camp affected settlements, which is planned to be conducted until the end of December 2017. The Terms of Reference for the Public Health Training have been provided for comment by the IESC and	• Expand the contents of the training plan to ensure the training is based on health data in various Project locations and include training schedule.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			EBRD. The comments include the requirement for additional information regarding health data in the camp areas to ensure that the reported processes for managing risks along the pipeline route have minimised the spread of communicable diseases. The Training program is on track for commencement of implementation. Occupational Health Audit Reports was shared together with the ESAP and ESDD comments. Those Audit Reports were also shared officially with Construction Contractors for their action. Any potential effects of population influx, with the consequent potential impact of exposure to communicable diseases, appears to have been mitigated, although not likely to have been through local employment practices as was assessed through the ESIA process. CINAR's third party quarterly monitoring has shown that local employment rates are lower than was targeted across all LOTs (excluding Offshore), reported to be due to lower than expected availability of working age population and due to the retrenchment processes of the existing local unskilled manpower	
4.9	Emergency Preparedness and Response	PC	Environmental Emergency Response Plans have been developed by Construction Contractors based on the	• Update offshore ERP to include EERT members.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			requirements of the Guidelines for Contractors specification developed by TANAP. The Security and Emergency Response departments of TANAP have undertaken training with relevant emergency response agencies and Construction Contractors on site, initiated by TANAP. Major incidents are to be prevented and contained by security systems including pipeline intrusion inspection system, which can be operated on any station or route (this will be moved to the Main Control Centre functions during the operations phase), as documented in the Security Management Plan. Fence and Building Intrusion Detection systems are in place on all AGIs, and regular walkovers and flyovers are in place of the pipeline for the construction phase. Unannounced emergency response drills and evacuation occur across the Lots on a regular basis. Emergency contact cards are given to all workers and visitors upon site entry. The offshore ERP has been prepared however it fails to identify environmental emergency response team (EERT) members. As the offshore construction activities had commenced at the time of the monitoring visit, these team members should have been identified and included within the ERP. The IESC raised concerns that in the event of an emergency situation, the lack of identified EERT members may	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			cause issues and time delays in notification and responsive action. However, TANAP informed the IESC that although the previous version of the ERP did not contain the onshore EER team full details, key members were determined and both landfalls have a continuous HSE presence hence no delays could have been encountered in the event of an emergency situation. Drills have been undertaken Offshore to provide for public safety (i.e. protection of other water users). Project vessels were reported to have Emergency Response providers on board, plus ARAS (a 3rd party contractor) has been engaged and can mobilise in 30 minutes in the event of an emergency. Additional protections for public safety are through implementation of two guard boats upstream and downstream of the pipelay barge and a 3rd vessel (speedboat) to intervene prior to any collision with the barge/other project vessels. Two drills have been carried out with port authorities; the first was not successful and so a second drill was implemented with improve outcomes.	
5	Land Acquisition, Involuntary Resettlement and Economic Displacement			
5.1	Avoid or minimise displacement	FC	Compliance was observed in relation to avoidance or minimisation of displacement, with no physical resettlement required over the length of the pipeline or at AGIs. Route	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			realignment has been carried out during the construction phase to manage deviations from the ESIA approved alignment, in accordance with Project procedures.	
5.2	Consultation	PC	Findings of the visit show that more targeted engagement activities are required, rather than reaching the same individuals or groups with Project information; see 10.1. During the site visit it was evident that consultation and engagement with Muhtars had been effectively undertaken, however less so for affected households and individuals who may have not been available for previous meetings or have mobility or access or cultural limitations. Consultation with vulnerable groups (e.g. vulnerable women/single heads of households) appeared lacking from the sample of sites visited during the audit. Engagement records with community members should always be uploaded into the system, including to capture where feedback is that there are experiences of 'consultation fatigue'. CLOs for the offshore area report that the consultation for the Offshore FLRP has been targeted and effective, reaching an increasing number of small-scale fishing vessels, and documenting this in a specific database. Participation rates in	• See 10.1

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			fishermen consultation meetings have been high (greater than 60%).	
5.3	Compensation for displaced persons	FC	As at the end of June 2017 (as per the last internal monitoring data), there are 28,121 public and private parcels being acquired for the pipeline, AGI, powerline and access roads to AGIs, (20,702 public and 7,419 are private), and 53.9% of which are registered. Urgent Expropriation (Article 27) has been applied to 13,444 parcels while negotiated settlement was achieved for 6,284 parcels. Payments made 2014-Q1/2017 sum to $75,910,361 (56% of which has been for forest, and 39% into land payments). No payments have yet been made for land exit procedures. The GLAC (2017) has improved documentation and clarity on entitlements for compensation for displaced persons See 5.5.	
5.4	Grievance mechanism	PC	TANAP has been monitoring grievances related to RAP, and has improved how it is able to record RAP-related grievances from others in OSID. From Project commencement to date, 2,036 complaints have been received; 80% of which (1,631) is closed were registered. 18% of the total (375) are now open whereas the remaining complaints (1%; 30 records) are now at 'waiting' (over 30 days unresolved) status.	• Implement ESAP item 10.1 (a) and (b)

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			The issue of overspill (i.e. work outside the RoW by the Project) has been identified through internal monitoring and during the audit by CLOs as an issue with a growing number of grievances picked up in the Grievance management tool, OSID. Internal monitoring data shows that 284 complaints spread over 4 LOTS have been received on this issue. Complaints include operation of heavy vehicles outside the corridor, or construction materials encroaching on agricultural lands or in drainage ditches, resulting in damage to lands, crops or infrastructure adjacent to the Project. CCs are making compensation payments or undertaking repairs to redress these grievances by agreement with landowners. These grievances relate directly to escalation of construction works with the most prevalent of all grievances being damage to private assets (58% of all grievances received since 2014). Further analysis and TANAP's response to manage grievances by LOT/site conditions/context is required to follow up any systemic construction management issues; this is required under PR10, ESAP item 10.1(b), i.e. how TANAP intends to communicate to affected communities how it is managing this most frequent grievance. Appeals Committees have been established and implemented to resolve grievances due to the Project in 12 cases with public	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			disclosure on Committee establishment underway through release of the updated GLAC (2017) brochure.	
5.5	RAP/LRP documentation	PC	The Offshore Fisheries Livelihoods Restoration Plan (Offshore FLRP) has been developed by TANAP in line with the RAP and ESAP item 5.2, and provided to EBRD and the IESC for comment. Significant issues were clarified regarding key aspects of the document, critically, groups impacted by the offshore construction activities during phases of Project activities and so, eligibility for compensation. Key requirements are to develop an addendum to the completed FLRP to identify different fishing areas used by local fishing vessels based on the detailed baseline data gathered, with an overlay of the project's construction activity areas. Potential impacts to livelihoods of host fishing ground users are also to be investigated, and safety assessments made regarding travel of small-scale fishing boats to host fishing grounds. Additional comments were also provided by the IESC and EBRD on the Offshore FLRP, and the Livelihood Restoration Plan (LRP) for AGIs as required by the ESAP. TANAP has also provided for comment RAP Monitoring Plan to the EBRD and IESC in line with ESAP requirements, and other RAP/LRP documentation for information (Internal and External RAP Monitoring Reports, RAP Fund Management Procedure).	• Develop an Addendum to FLRP to strengthen the completed FLRP in line with the Lenders' comments, with: clear definitions of and distinction between amateur fishermen; affected fishermen, etc.; mapping of affected fishing areas; fish stock data/information in affected and alternative host areas and known fishing grounds; and, safety issues associated with small scale boat travel to alternative remote host fishing areas. • Submit the addendum to FLRP to the Lenders for their review

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			The GLAC has also been updated containing the consolidated entitlements matrix with responsibilities of all parties, with the current version (titled: Brochure on Further Entitlements on Land Acquisition and RAP Fund, 2017) disclosed on the TANAP website and also now being distributed in hard copy to affected villages. Internal RAP monitoring noted that more systematic distribution of the GLAC was required and TANAP reports that since the end of Q2 period, TANAP Site Social Impact Specialists have been carrying out systematic RAP-specific disclosure and targeted engagement activities; this is noted and aligns with the IESC findings of the need to consolidate stakeholder and project-affected household data in order to target engagement and RAP implementation activities more effectively (i.e. to share information with the most vulnerable, and others who have not self-identified as eligible, as a priority). As at September 2017, the IESC notes that 144 village-level and 41 local authority meetings have been held to publicly disclose information regarding the RAP Fund. The disclosure of this brochure, which also seeks to identify vulnerable groups, is planned to continue in Q4/2017..	
5.6	RAP/LRP implementation	PC	Implementation of the FLRP has commenced, following dredging activities 14 June – 13 July, with the first round of	• Provide an updated timeline on proposed exclusion periods to

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			fuel compensation provided to 23 vessel owners and users following 27 applications for subsidies. In September 2017, additional impacts are expected to occur to fishing communities, and as a requirement of the FLRP, disclosure of was immediately made on 7th-8th September, prior to the commencement of the construction impact. Thus proactive stakeholder engagement could be achieved to ensure that those fishermen not present during the summer season are targeted for inclusion for compensation in later construction periods. Following disclosure activities, the number of vessels applied for the diesel support program increased from 23 in the summer season to 43 in fall season. TANAP will need to ensure that with an anticipated extension of Project activities in the Marmara crossing for the fall construction season (e.g. due to poor weather/other construction delays), it can be anticipated that there might be additional restrictions on fishermen's access to fishing grounds, and so extended fuel subsidy payments required; TANAP will need to maintain its disclosure to those affected. Approximately 40% of the ROW has been reinstated as at the time of the site visit (i.e. mechanical completion and biorestoration phases). The Land Exit Procedure, which is a TANAP responsibility, commences at the completion of	fishing livelihoods-affected people, along with the Addendum to FLRP.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			biorestoration, i.e. land exit instructions have been shared with CCs but the formal Land Exit Procedure has not yet commenced for the Project. However, there has been a trial of the Land Exit Procedure for lands rented by the CC (e.g. land which had been used for a pipe stockyard at Orenbel). These arrangements fall outside TANAP's direct responsibility as this rental land is by agreement with CCs and landowners. Sample land entry and exit protocols for rented lands were sighted by the IESC for this case; photographic evidence is attached to protocols, along with signoff by land shareholders, land users, the relevant Muhtar and the CC. It is recommended that lessons learned from CCs experience in Land Exit are captured and applied by TANAP, prior to TANAP commencing its Land Exit procedure in the coming quarterly monitoring period.	
5.7	Monitoring	PC	TANAP has been conducting regular monitoring of its RAP implementation commitments. The RAP has been prepared with a number of additional documents to fill gaps between Turkish and international Lender requirements. This includes preparation of the RAP Monitoring Plan, which has been provided to the EBRD and IESC for comment (ESAP item 5.3). Internal and external monitoring has been undertaken in line with the RAP Monitoring Plan and has identified a number of	• Implement (including with partners) and monitor alternative livelihoods restoration programs other than Project employment for local people if needed during monitoring of the existing livelihood restoration programs provided by TANAP including third parties; align program implementation with

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			key issues requiring redress. From a process perspective, an action plan for addressing issues identified through the monitoring process is recommended, e.g. consolidated with internal issues for follow-up. Internal RAP Monitoring data supports the findings of the third party monitoring (by CINAR) regarding low potential and take-up of employment by local people as a livelihood restoration measure. This is a key finding regarding suitability of Project employment as a transitory livelihood restoration option for local people with the potential for vulnerability, as is described in the LRP for AGIs. TANAP Project provides additional livelihood support through the RAP Fund and livelihood assistance programs articulated in the LRP for AGIs, and monitoring data should be tracked to ensure that people identified as vulnerable/potentially vulnerable are prioritised or targeted for additional livelihood support. It is acknowledged that there is no single database with all project-affected people documented. However, in order to identify particular groups and ensure that targeted engagement and monitoring occurs, TANAP has commenced development of a vulnerability-based database with the data being collected by TANAP Site Social Impact Specialists throughout RAP-specific stakeholder engagement meetings.	monitoring data to ensure that people identified as vulnerable/potentially vulnerable are prioritised for alternative programs. • Develop a tailor-made database of project-affected people in which prioritised groups (highest priority being vulnerable groups and those with agricultural livelihoods) are captured; use this data to implement targeted RAP actions (engagement, programs support and monitoring) that must be effective during and after construction phase activities.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			The Vulnerable Group Checklist has been developed to assist in identifying and reaching the vulnerable people who are not self-identifying to the Project through broad-scale information dissemination and engagement activities (e.g. public meetings, seeing notices on boards). Identification of vulnerable people has commenced and will continue into Q4/2017 (and beyond). The existing internal and external monitoring processes and grievance redress mechanism (OSID) enable TANAP to understand whether sufficient compensation has been applied to restore livelihoods of agricultural livelihoods (through registration of complaints as 'Loss of livelihood and/or Expropriation and Land Acquisition' categorisation. Monitoring by CLOs has identified that there is a general feeling of 'consultation fatigue' in affected communities, yet these key groups are not sufficiently understood to be able to monitor the outcomes of RAP implementation as is required by the RAP Monitoring Plan. Targeted comparison is required of BOTAS payment records and TANAP's OSID (grievance and engagement records) to identify where project-affected people for prioritisation of engagement, mitigation and monitoring activity.	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
6	Biodiversity and Living Natural Resources			
6.1	Assessment of Biodiversity and Living Natural Resources - Biodiversity Offset Strategy	PC	A Biodiversity Offset Strategy (BOS) dated September 2017 (Report No. 1786851/9059) developed by Golder Associates. The BOS is strategic in that its stated purpose is to provide a practical and achievable offset scheme for TANAP and to create a framework to direct actions required to offset Project related residual impacts to biodiversity in accordance with the specific requirements and standards of EBRD's PR6 and the IFC's PS6. The BOS presents a methodology for calculation of the residual impacts and the biodiversity offset requirements to achieve a net gain in Critical Habitat and no net loss of Priority Biodiversity Features and Natural Habitats. The BOS presents the quantification of the residual effects of the Project and discusses the requirements for further data gathering to refine the calculations and to address the limitations of the quantified assessment. The strategy does not identify specific biodiversity management actions but rather identifies potential offsets and additional conservation actions in accordance with good international practice to achieve No Net Loss or Net Gain outcomes relative to the residual affects identified for Natural Habitats, Priority Biodiversity Features and Critical Habitats. The strategy defines the approach to stakeholder engagement,	• Disclosure of Biodiversity Offset Strategy as per ESAP Requirements. • Implementation of the Biodiversity Offset Strategy schedule as per Table 13 of the BOS.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			monitoring and adaptive management, including mechanisms that allow re-calculation of net loss and gains and facilitate adjustments to the offset strategy to achieve the stated objectives. The BOS provides a conceptual framework that will guide TANAP towards the development and implementation of a detailed Biodiversity Offset Plan as a part of TANAP's Environmental and Social Management System. The BOS meets the key requirement of the ESAP to develop a draft offset strategy by the end of Q3 2017 with the aim of publicly disclosing a BOS prior to the EBRD Board Meeting.	
6.1	Assessment of Biodiversity and Living Natural Resources - Offshore Construction Method Changes	PC	The E&S monitoring visit to the offshore construction component of the Project identified that the construction method for pipelay across the Sea of Marmara was subject to separate assessment of dredging works with potential to result in increased sediment loads which may pose risk to nearby seagrass beds. These impacts were assessed through additional studies undertaken after the ESIA and which resulted in a range of management actions to protect identified sea grass habitats. The disclosed Offshore Construction Environmental Management Plan does not define the use of dredging methods and does not describe the management action and monitoring measures that have been implemented by the offshore construction contractor to ensure	• Ensure revisions of the Offshore Construction Impact Management Plan (SPK-PLN-ENV-DAR-002) and the Pollution Prevention Plan (SPK-PLN-ENV-DAR-005) to include the details of selected construction method and key controls that align to that method. Specifically, these plans should provide adequate description of the sediment management and monitoring associated with dredging.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			the protection of seagrass beds and other identified values. The monitoring visit has verified that measures to manage and monitor increased sediment in sea water from dredge activities were undertaken during the dredging that has occurred to date. However, the assessment of impacts and the management planning documentation has not been reviewed for the dredging activity and it is, therefore, unclear if the procedures in place for turbidity monitoring and management are reasonable. The E&S monitoring team have requested the Offshore Crossing Additional Assessment Studies Summary Report as part of the post site visit document request, but this document is yet to be provided for review.	
6.2	Conservation of Biodiversity – Erosion Control and Reinstatement	FC	The Lot 2 Spread 3 RoW restoration works were reviewed against the requirements specified in the Erosion Control, Reinstatement and Landscaping Plan (SYA-PLN-ENV-GEN007). Restoration works are developed through contractor-developed plans with the required restoration mitigation works and designs prescribed through the site alignment plans. The alignment plans include specification of erosion controls, including permanent and temporary slope breakers, the use of hydro-mulch, jute matting, access points and seeding specifications. Change requests are required to be approved prior to changes to the agreed alignment plans being implemented. Restoration validation surveys are completed by	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			the contractor following completion of each section of RoW to verify works have been completed in accordance with the approved design. Post restoration monitoring will continue for a further 2 years before all contractor responsibilities for the RoW are handed over to TANAP. TANAP showed drone video footage of the restoration works that have been completed through Lot 2 Spread 3 critical habitat that occurs within Anatolian gypsum soils where the shallow karst soils present significant restoration challenges. The drone video footage and the site visit to completed reinstatement at KP 416 and 417 demonstrate the implementation of effective restoration works. Drainage and erosion control measures including slope breakers, hydro-mulch and jute matting were observed to be well constructed and completed to a high standard. Examples of additional erosion control measures were observed where contractors had implemented additional measures based on site specific conditions.	
6.2	Conservation of Biodiversity – RoW Public Access	FC	Project access control to restored sections of the RoW was observed to be well managed and in accordance with design. However, public access to the restored RoW is not controlled and there was some section where farm vehicles and machinery have accessed restoration works. Preventing public vehicle and machinery access over restoration sites is difficult to control as no barriers are maintained post restoration.	• Despite being found fully compliant against the EBRD PRs, the IESC has identified an opportunity for improvement to strengthen the mitigation actions: It is recommended that contractors and TANAP maintain records where high

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			However, if access is concentrated in specific areas then this could impact restoration performance.	levels of public access on restored sections of the RoW have occurred. These records can be used to compare against post restoration monitoring data and may also trigger consultation with neighbouring land users/owners if access in specific locations is causing significant concerns that restoration works may be substantially impacted. • Consider the installation of signage along reinstated RoW to prevent public access.
6.2	Conservation of Biodiversity – Wildlife management of open trenches and excavations.	FC	The site visit observed substantial sections of open excavations. This was most evident at Lot 4 near where the sections traversed to and from each of the shore crossing sites. Wildlife crossing areas were observed that would allow passage of wildlife from one side of the trench to the other.	
6.2	Conservation of Biodiversity – Terrestrial Restoration	FC	The monitoring team observed site restoration completed along the RoW and reviewed records of reinstatement from Reinstatement Validation Survey Reports. A range of completed Reinstatement Validation Survey Reports were	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			available for Lot2 Spread 3, (KP431+230; KP411+523; KP427+765; KP429+464; KP430+158). The validation survey reports include verification of works being completed in accordance with the alignment plans, details of erosion and sediment controls, bioremediation prescription. Verification is signed off by contractor and client personnel including environment representatives, soil experts and Land Access Representative. Requirements of Special Area Reinstatement Method Statement for Critical Habitats (SYA-MST-ENV-PL2-003) was reviewed. The method statement includes details for restoration of all critical habitat sites within Lot 2. The mitigation measures defined for each Critical Habitat within Lot 2 align with the requirements and prescribed methods contained in the TANAP BAP.	
6.3	Sustainable Management of Living Natural Resources - Freshwater Critical Habitat management	PC	Management of critical habitats was observed at Lot 2 Spread 3. Freshwater Critical Habitat (FCH09, KP 506) was visited during the monitoring visit. The FCH site had recently been accessed for hydrotesting purposes and left in a poor physical state. Waste and remnants from hydrotesting were scattered across the site, and physical signs of riverbank erosion was evident. As this is categorised as a Fresh Water Critical Habitat, the increased soil material may cause increased	• The construction phase pollution control plans and procedures must be implemented and monitored during the full term of construction, including the period between various sub–contracted activities.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			turbidity impacting wildlife. Monitoring of the site by the contractors, TANAP and the third party monitors should have identified these issues. The observations undertaken at the FCH sites visited for Lot 2 Spread 3 indicate that the active construction phase is occurring over several months with various work packages being completed prior to formal reinstatement and implementation of the monitoring that occurs during the restoration phase. The management of the site during the construction phase is prescribed in the Contractor's Pollution Prevention Plan (SYA-PLN-ENV-GEN-005), specifically section 4.7.2.1.1 River Crossing Highlights. Furthermore, the critical habitat mitigation plan for FCH 09 as specified in the Construction Impacts Management Plan (SYA-PLN-ENV-GEN-008) states that silt screens and sediment traps should be in place throughout construction to prevent or minimise downstream sedimentation. It is noted that works remedial works were implemented immediately following the site visit to address the observations.	
7	Indigenous People			
7.1	Indigenous People Assessment			

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
7.2	Adverse Effects Avoidance and Indigenous Peoples Development Plan		Performance Requirement 7 is not applicable to the TANAP Project.	
7.3	Information Disclosure, Meaningful Consultation and Informed Participation			
7.4	Grievance Mechanism and Prevention of Ethnically Based Discrimination			
7.5	Compensation and Benefit-Sharing			
7.6	Impacts/Relocation on Traditional or Customary Lands and Cultural Heritage			
8	Cultural Heritage			
8.1	Assessment and Management of Impacts on Cultural Heritage	FC	TANAP continues to manage its cultural heritage obligations with on-site archaeologists working at times of land clearance and excavation, and initiating investigation by the Ministry of Culture and Tourism, as is required under the Chance Find procedure, and instituting route variations if required by the	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			Ministry. Archaeological specialist oversight is undertaken during all works, including the beach-pull site at the Anatolian landfall, currently active on the Marmara Crossing. CCs additionally reported provision of training by the Environment team on Cultural Heritage, which is reported on to TANAP in line with reporting requirements. There are no ESAP items relevant to Cultural Heritage.	
8.2	Consultation with affected communities and other stakeholders	FC	Engagement has been undertaken with the Museum Directorate of the Ministry of Culture and Tourism, as the responsible agency for advice and direction on archaeological finds, and TANAP has undertaken management of any finds (e.g. re-routing of the alignment or in situ protection) as directed by the Ministry.	
8.3	Project use of Cultural Heritage	N/A		
10	Information Disclosure and Stakeholder Engagement			
10.1	Stakeholder Engagement Plan	PC	The current Stakeholder Engagement Plan (TNP-PLN-SOC-GEN-001-P3-2), being implemented by TANAP, guides stakeholder engagement for the Project. This document has been disclosed on both TANAP and EBRD websites.	• Target engagement activities with project-affected people on specific issues to their interests in the Project, according to database information from TANAP and

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			During the site visit, TANAP social specialists and CC CLOs reported evidence of 'consultation fatigue' within project-affected communities. While TANAP has been paying attention to selection of settlements for each monitoring study/site visit to avoid multiple subsequent visits to the same locations, it suggests (without analysis of detailed engagement records) that TANAP should continue its efforts of more targeted engagement activities, rather than reaching the same individuals or groups with Project information. Findings on PR5 Monitoring also discuss this issue; targeted analysis of the available Project databases (OSID and BOTAS' Land Acquisition Information System) is required to identify those project-affected people most likely to be vulnerable and/or affected by loss of agricultural livelihoods, and those that have not been targeted or attended Project information sessions. This should then inform implementation of the SEP including its Annex-2 RAP-specific Stakeholder Engagement Implementation Guideline drafted by TANAP and provided for comments to EBRD. Site visit and public consultation feedback from affected communities also provided insight into contacts considered most relevant to project-affected people. Responses included BOTAS, CCs CLOs and TANAP representatives. This is understandable with divisions of roles as defined in TANAP SEP	BOTAS on key stakeholder groups and their interests in the Project (e.g. vulnerable groups, those whose agricultural lands/crops are affected). • Ensure all grievances received by Construction Contractors are registered in OSID including those received and closed on the same day.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			and RAP documentation, including the GLAC (2017). However, this feedback suggests that targeted engagement will be required prior to completion of the BOTAS and CC roles to ensure that stakeholders are clear that ongoing and ultimate Project responsibilities belong to TANAP. This includes resolution of any post-Land Exit process grievances that may emerge, where BOTAS and CCs are no longer providing CLOs/staff responsible for Project activities (other than defined biorestoration measures/contract guarantee period monitoring). Improvements are required in the implementation of engagement activity to prepare for the material change in the Project with the completion of the construction phase.	
10.2	Operational Grievance Mechanism	PC	TANAP continues to use OSID (the Online Stakeholder Interaction Database) to track both internal and external grievances. The total number of external grievances received has been provided by TANAP with quarterly Internal Monitoring Reports. The ESAP requires reporting by the end of September 2017 of summary grievance data, which is then required under ESAP item 10.1 to be reported to communities along with the measures taken by TANAP and CCs to address those commonly received and rectified. TANAP Q3 monitoring data continues to show that the top four construction phase grievances received relate to damage to assets (land & crop, road, irrigation channels and pipes, domestic waterline),	• TANAP to strengthen monitoring of CCs use of OSID for registration of all grievances received, including those received and closed on the same day.

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			primarily private assets. There has been an increase in the number of RAP Fund related registrations, which correlates with the commencement of RAP Fund information disclosure, and indicates effectiveness of the grievance mechanism. The Grievance Mechanism is operational; CCs demonstrated records of grievances received from the community. These are received either verbally or in writing and majority are registered into OSID (therefore reported as required to TANAP). Complaint resolution is undertaken with relevant internal departments and through site inspection with complainants. Appeals Committees have been established since January 2017 (4 committees established for the project overall); when grievances cannot be resolved these are escalated to the Appeals Committee for that area. Quarterly third party monitoring undertaken by CINAR, including of the grievance mechanism, was last reported on 14 September 2017. CINAR reported that in LOT 1, 74% of grievances remained registered after more than 30 days, significantly higher than across other LOTS, and further, a common observation of non-registration of all grievances into OSID by CCs, including those received and closed on the same day. This has meant that although redress had been carried out (e.g. repairs have been made to damaged complainants'	

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			infrastructure), the complaints had not been registered and therefore have not been included into the summary data accessible to TANAP for project-wide monitoring and reporting and to provide TANAP with data about particular issues following completion of construction. TANAP has its own CLOs on site and should be following up on this monitoring data to ensure all grievances are tracked, in line with the documentation developed to guide implementation. Appeals Committees have successfully heard and resolved complaints relating to damage to the environment, public and private assets. The Committees' terms of reference exclude it from hearing labour and expropriation laws, which can be resolved through existing Turkish national legal frameworks. Establishment and operation of the Appeals Committees has been an additional initiative to strengthen Project's existing Grievance Mechanism.	
10.3	Information Disclosure	PC	The Stakeholder Engagement Plan (TNP-PLN-SOC-GEN-001-P3-2, including Annex 1, Construction Phase implementation), is being implemented by TANAP and guides stakeholder engagement for the Project. This current version of the document has been disclosed. TANAP is required under the ESAP to provide additional detail to the EBRD regarding the modality of disclosure to affected	• In addition to broad public disclosure as was commenced in August 2017, the distribution of the 2017 GLAC should be targeted to those groups whom have previously not attended/self-nominated as eligible for support under the RAP

KPI Ref.	Performance Requirement	Score	Comments/ Issues	Actions Required
			communities on key project documents including ESMPs. TANAP reports that the additional RAP requirements were disclosed to affected communities through distribution of the TANAP Guide to Land Acquisition and Compensation (GLAC) (2017) as a brochure on Additional Entitlements on Land Acquisition and RAP Fund, although TANAP recognises that distribution of the updated GLAC requires additional targeting/planning. Further, Turkish versions of all RAPs (including Addendum and RAP for AGIs) were published for physical disclosure in every province along the pipeline; one copy of each RAP was delivered in June 2017 to 20 governorships of all provinces and 63 sub-governorships in each district. Disclosure is continuing for key documents including: the Fisheries Livelihood Restoration Plan was disclosed online and in print in Turkish language; and a summary of the 1st Semi-Annual External RAP Monitoring Report was disclosed online. Public disclosure on the Appeals Committees has included distribution of the updated GLAC (2017) document, as well as notification to complainants where resolution has not been achieved (12 instances as of September 2017).	Fund in order to reach differently or disproportionately affected groups.

APPENDIX A:

SITE VISIT ITINERARY

Appendix A: Site Visit Itinerary

Location		Activity	Date	Time	Duration	Comments
LOT-2 / Spread-3	T	Transfer of EBRD Team from Ankara Hotel to Esenboğa Airport	11-09-17	06:10 07:00	50 mins	
	T	Transfer of EBRD Team from Erzincan Airport to Kelkit/Aydoğdu Fly Camp		10.00 11:15	75 mins	with Tanap Project Vehicles
	A	Tea / Coffee Break		11:15 11:30	15 mins.	TANAP Management Meeting Room
	A	Health and Safety Induction / PPE (SYA JV) (Handover of PPE's to EBRD reps)		11:30 12:00	30 mins	TANAP Management Meeting Room
	A	Lunch		12:00 13:00	60 mins.	TANAP Refectory
	A	Welcome / SYA JV Presentation		13:00 14:30	90 mins.	TANAP Management Meeting Room
	A	Camp Facilities Visit (such as Camp Clinic, Laundry, Dorms, etc.)		14:30 15:00	30 mins.	Kelkit Aydoğdu Fly Camp
	A	ENVIRONMENTAL TEAM Transfer to FCH 9 Freshwater Critical Habitat Visit		15:00 16:00	60 mins	KP 506
	T	ENVIRONMENTAL TEAM Transfer to Reinstatement Area		16:00 17:00	60 mins	KP 480
	A	ENVIRONMENTAL TEAM Reinstatement Area Visit		17:00 18:00	60 mins	KP 480
	A	SOCIAL TEAM - Eskiyol Village Visit; A meeting to be held with Muhktar, Villagers		15:00 18:00	180 mins	Eskiyol Village

	T	Transfer to Hilton Garden Inn (Erzincan)		18:00 19:15	75 mins	with Tanap Project Vehicles
LOT-2 / Spread-3	T	Transfer from Hilton Garden Inn (Erzincan) to Çadırkaya Main Camp	12-09-17	08:30 09:40	70 mins.	with Tanap Project Vehicles
	A	Tea / Coffee Break		09:40 09:55	15 mins.	TANAP Management Meeting Room
	A	Camp Facilities Visit (such as Camp Clinic, Laundry, Dorms, etc.)		09:55 10:35	40 mins.	Çadırkaya Main Camp
	T	Transfer to Reinstatement Area		10:35 11:35	60 mins.	with Tanap Project Vehicles (KP 380)
	A	Environmental Team Reinstatement Area Visit		11:35 12:30	55 mins	KP 380
	A	Social Team Topalçavuş and Güneyçam Villages Visit; A meeting to be held with Muhktar, Villagers		11:35 12:30	55 mins	Topalçavuş and Güneyçam Villages
	T	Transfer from Topalçavuş Village to Çadırkaya Main Camp		12:30 13:00	30 mins	with Tanap Project Vehicles
	A	Lunch		13:00 14:00	60 mins.	TANAP Refectory
	A	Close Out		14:00 14:30	30 mins.	TANAP Management Meeting Room
	T	Transfer from Çadırkaya Main Camp to Erzurum Airport		14:30 16:15	105 mins.	with Tanap Project Vehicles
CS-5 / Eskişehir	T	Travel from Ankara to CS5/MS2 Site	13-09-17	08:00 11:30	210 min	with Tanap Project Vehicles
	A	H&S Induction Training and opening Meeting in CS5/MS2 Site Camp (Handover of PPE's to WB reps)		11:30 12:15	45 min	CS5/MS2 Site Camp Big Meeting Room

	A	Lunch in CS5/MS2 Site Camp		12:15 13:00	45 min	
	A	CS5/MS2 Site: Construction manager/contractor TKN		13:00 13:30	30 min	CS5/MS2 Site Camp Big Meeting Room
	A	CS5/MS2 Site: Contractor's Personnel Manager (HR Representative) TKN		13:30 14:00	30 min	CS5/MS2 Site Camp Big Meeting Room
	A	CS5/MS2 Site Camp: HS & Security Managers from TKN– regarding issues related to contractor workforce and labor influx and Health issues		14:00 14:30	30 min	CS5/MS2 Site Camp Big Meeting Room
	A	CS5/MS2 Site Camp: CLO and Social Performance manager ofTKN, Social Development Specialist – regarding workers grievances, relations with the community and community grievances		14:30 15:00	45 min	CS5/MS2 Site Camp Big Meeting Room
	A	CS5/MS2 Construction Site: Visit to Construction Area		15:00 16:30	90 min	Construction Site
	T	CS5/MS2 Site Camp: Interview construction workers in the workers camp		16:30 18:00	90 min	CS5/MS2 Construction Site & Site Camp Big Meeting Room
	T	Transfer from CS5/MS2 Site Camp to Eskişehir Hotel		18:00 19:00	60 min	Accommodation in Hotel Eskişlehir
Offshore	T	Travel from Eskişehir to Offshore (Anatolian Side)	14-09-17	08:00 13:30	210 min	with Tanap Project Vehicles
	A	H&S Induction Training and opening Meeting in Offshore		13:30 14:45	45 min	Offshore Meeting Room

	A	Offshore Site: Construction manager/contractor SPK		14:45 15:15	30 min	Offshore Anatolian Landfall Meeting Room
	A	Offshore Site: Contractor's Personnel Manager (HR Representative) SPK		15:30 16:00	30 min	Offshore Anatolian Landfall Meeting Room
	A	Offshore Site: HS & Security Managers from SPK– regarding to contractor workforce and labor influx and Health issues		16:00 16:30	30 min	Offshore Anatolian Landfall Meeting Room
	A	Offshore Site Camp: CLO and Social Performance manager of TKN, Social Development Specialist – regarding workers grievances, relations with the community and community grievances		16:30 17:15	45 min	Offshore Anatolian Landfall Meeting Room
	T	Transfer to Gelibolu from Biga for Hotel Accommodation		17:30 19:00	90 min	Staying at Gelibolu for the night
Offshore	A	Travel to Offshore Construction European Site: Visit to Construction Area	15-09-17	08:00 10:00	120 min	with Tanap Project Vehicles
	A	Visit to Offshore Construction Area: Interview construction workers in the European Landfall		10:00 12:00	150 min	European Landfall Construction Site
	T	Transfer from Offshore Site to İstanbul Airport		12:00 16:00	240 min	with Tanap Project Vehicles

APPENDIX B:

DOCUMENT REQUEST TABLE

Appendix B: Document Request Table

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
Q1_WBcomments_TNPComments_2017.06.16_WBadd	Comments about Q1 Monitoring Report	World Bank	Q1 2017	04/08/2017	
Q2_WB comments and clarification questions for RAP 2nd IMR	WB Comments and Clarifications Questions	World Bank	Q1 2017	04/08/2017	
TNP-PLN-SOC-GEN-010 RAP Monitoring Plan_P3-1	TANAP RAP Monitoring Plan	TANAP	01/06/2017	04/08/2017	
WB Comments TNP Responses_1st External MR	WB Comments TNP Responses	World Bank / TANAP	20/07/2017 / Q1 2017	04/08/2017	
01_Fisheries Livelihood Restoration Plan FINAL	Offshore Fisheries Livelihood Restoration Plan	TANAP	Rev3-0 10/07/2017	02/08/20187	
02_Draft_Livelihood Restoration Plan for AGIs_June2017	TANAP Project Livelihood Restoration Plan for Above Ground Installations (Draft)	TANAP/ SRM	30/06/2017	02/08/2017	
03_Q1 Quarterly Internal RAP Monitoring Report_March2017	TANAP 1st Quarterly Internal RAP Monitoring Report	TANAP	30/03/2017	02/08/2017	

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
04_Q2 Quarterly Internal RAP Monitoring Report_June2017	TANAP 2nd Quarterly Internal RAP Monitoring Report	TANAP	30/06/2017	02/08/2017	
05_First Semi-Annual External RAP Monitoring Report_June2017	TANAP Project – First Semi-Annual External Land Acquisition and Resettlement Monitoring and Evaluation Report	TANAP External Monitoring Panel	June 207	02/08/2017	
06_RAP Fund Management Procedure	TANAP RAP Fund Management Procedure	TANAP	08/06/2017	02/08/2017	
07_RAP Monitoring Plan_P3-1	RAP Monitoring Plan	TANAP	01/06/2017	02/08/2017	
TNP-SRM Responses on WB comments on Draft LRP_20170731	Draft LRP for AGIs Review Comments	TANAP	July 2017	02/08/2017	
ToR_Public Health Training for Communities	Terms of Reference for Public Health Training for Communities	TANAP	August 2017		
TNP-PLN-HSM-GEN-015	Fatigue Management Plan	TANAP	07/08/2017		
Annex 2 - RAP-specific Stakeholder Engagement Implementation Guideline_1	Stakeholder Engagement Plan	TANAP	28/08/2017		

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
	Annex 2 Rap-Specific Stakeholder Engagement Implementation Guideline				
Programme of Prevention of Communicable Diseases Annex 2 - RAP-specific Stakeholder Engagement Implementation Guideline_1					
Programme of Prevention of Communicable Diseases Annex 2 - RAP-specific Stakeholder Engagement Implementation Guideline_1.docx.vvl4zf2					
Fatigue Management TNP-PLN-HSM-GEN-015	Fatigue Management Plan	TANAP	07/08/2017		
TANAP H&S KPI_July 2017	TANAP – H&S Management Summary July 2017	TANAP	July 2017		
P4-1 Environmental Emergency Response Plan	Environmental Emergency Response Plan	SKEAS TANAP	08/07/2017	Disclosed in June 2017.	
P4-0 Construction Impact Management Plan	Construction Impact Management Plan	SKTLO TANAP	07/03/2017	Disclosed in June 2017.	
Engagement Plan_HR.24.08.2017	Informing TANAP Contractor Company Employees About The Working Conditions	TANAP			

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
TANAP Labor Audit Report March 2017	Limited Audit Report	TANAP	21/07/2017		Received post audit
CIN-PRQ-PRC-GEN-013 Rev P3-C_12th quarterly monitoring	Quarterly Environmental and Social Monitoring Report (May – July 2017)	TANAP CINAR	14/09/2017	02/10/2017	Received post audit
Env	Environmental Management at Compressor Station 5 & Metering Station 2	TANAP TEKFEN	09/2017	02/10/2017	Received post audit
HS	TANAP – Tekfen Compressor and Metering Stations - Hs Update	TANAP TEKFEN	13/09/2017	02/10/2017	Received post audit
Sec	TANAP Trans Anatolian Natural Gas Pipeline Project Compressor and Metering Stations	TANAP TEKFEN		02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
	Security				
Site Induction_13th September 2017 (2)	TANAP Compressor and Metering Stations Project Induction Training	TANAP TEKFEN	13/09/2017	02/10/2017	Received post audit
Soc	Social Requirements Social Team Organization	TANAP TEKFEN		02/10/2017	Received post audit
mom_07.06.2017	Bi-Monthly HS Meeting with contractors HS(E) Managers	TANAP	07/06/2017	02/10/2017	Received post audit
mom_31.05.2017	Bi-Monthly HS Meeting with contractors HS(E) Managers	TANAP	31/05/2017	02/10/2017	Received post audit
Carrying Out Welding Procedure_Risk assessment	Risk Assessment Form	TEKFEN	02/01/2017	02/10/2017	Received post audit
Ekler	ARAMA ve KURTARMA EĞİTİMİ		28/08/2017	02/10/2017	Not in English Received post audit
Emergency drill programme 2017	Emergency Drill Programme	TEKFEN	09/2017	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
Fatigue Risk Assessment	Risk Assessment Form	TEKFEN	10/05/2017	02/10/2017	Received post audit
Night Work Permit	Night Work Permit Approval Package Form	TEKFEN TANAP	18/09/2017	02/10/2017	Received post audit
TKN-HSM-DRL-008-SRE03	HSE Drill Report	TEKFEN	15/08/2017	02/10/2017	Not in English Received post audit
TKN-HSM-DRL-008-SRE04	HSE Drill Report	TEKFEN	15/08/2017	02/10/2017	Not in English
doc01236020170613112024	TANAP Fatigue Management (Training course – Attendance sheet)	FEANAS GUSEM Worley Parsons TANAP	12/06/2017	02/10/2017	Received post audit
doc02716120170621102047	Project Safety Alert (Toolbox Attendance Form)	FEANAS	20/06/2017	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
Management presentation and attendance sheet	Minutes of Meeting: Monthly Process Review Meeting	TANAP	06/2017	02/10/2017	Received post audit
Matrix overall 2017	Matrix overall 2017	FERNAS	2017	02/10/2017	Received post audit
Tanap Fatigue management and Ramadan	Attendance form	FERNAS TANAP	13/06/2017	02/10/2017	Received post audit
TOOLBOX	Incident Notification Form	TANAP	10/06/2017	02/10/2017	Received post audit
Spread 3 Site Observation Table and Close Out Actions	Spread 3 Site Observations and Close-out Evidence				Received post audit
TANAP SP3 Daily SOB (BVS 12 FILTERED)	TANAP PROJECT LOT 2 SP3 DAILY H&S OBSERVATION REPORT - All Observations				Received post audit
2017_06_05_Monday_Look_Ahead_Briefing_Spread3	Weekly TBT BRIEFING 05 JUNE 2017 Spread 3 Erzincan		05/06/2017	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
Fatigue Management Training Plan	Fatigue Management Training Plan			02/10/2017	Received post audit
H.S.E Monday Look Ahead Briefing Topics - 5 June 2017	H.S.&E. Weekly Look Ahead Briefing Topics: 5 June 2017		05/06/2017	02/10/2017	Received post audit
Fatigue At Work-Lot 4	Fatigue Management – Trans Anatolian Natural Gas Pipeline Lot 4	TANAP		02/10/2017	Received post audit
PLK Fatique Management Training Plan	Fatigue Management Training Plan	TANAP		02/10/2017	Received post audit
1- 9	Training Attendance sheet	TEKFEN		02/10/2017	Received post audit
Fatigue management training plan	Fatigue Management Training Plan	TEKFEN		02/10/2017	Received post audit
Training Matrix_2017_CS5&MS2_21.09.2017_r4	TANAP Trans Anatolian Natural Gas Pipeline Project Compressor Stations	TEKFEN	2017	02/10/2017	Received post audit
Aydoğdu Fly Camp Presentation 11.09.2017	TRANS Anatolian Natural Gas Pipeline Project Lot 2	SICIM Yuksel	11/09/2017	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
	Environmental Aspect				
Cadirkaya Main Camp Presentation 12.09.2017	Bio restoration Documentation	TANAP SICIM Yufsel		02/10/2017	Received post audit
KP411+523-KP411+588 KP426+657-KP426+696 KP427+765-KP427+843 KP429+464-KP429+485 KP430+158-KP430+232 KP430+817-KP431+090	Reinstatement Validation Survey Report	SICIM Yuksel TANAP	19/08/2017	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
KP431+230-KP431+347					
0_191 0_746 0_749 TUTANAKLAR					Not in English Received post audit
0_191 0_746 0_749	Land Exit Protocol for Rented Lands	SICIM Yuksel	13/12/2016	02/10/2017	Received post audit
Land Delivery Entry, Exit and Rental Procedure SYA	Land Delivery, Entry, Exit and Rental Procedure (Land Management)	TANAP Worley Parsons	26/06/2015	02/10/2017	Received post audit
SYA-MST-ENV-PL2-003 for CHs&FCHs	Special Area Reinstatement Method Statement for Critical Habitats	TANAP	20/12/2016	02/10/2017	Received post audit
	Specification for Reinstatement				Received post audit
20.07.2016_Er Doğu Can Geri Dnş.					Not in English

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
					Received post audit
24.11.2016_domestic waste disposal	Domestic Waste Transport Form	SICIM Yuksel TANAP Worley Parsons	24/11/2016	02/10/2017	Received post audit
29.12.2016_010806 hazardous wastes-Kelkit	Hazardous Wastes	SICIM Yuksel	29/12/2016	02/10/2017	Received post audit
2016 12 Waste Water Transport Forms_December	Waste Collection Site	SICIM Yuksel	06/12/2016	02/10/2017	Received post audit
17.07.14 Incident Report - Minor Oil Spill 0.5L	Incident Report: Environmental		15/07/2017	02/10/2017	Received post audit
17.09.14 Offshore Environmental Presentation	Tanap Project offshore pipeline and fibre optic cables installation – Environment	TANAP SAPURA	14/09/2017	02/10/2017	Received post audit
29.09.17 Social Presentation	Social Impact Management	TANAP SAPURA	09/2017	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
29.09.17 WB-Social	Social Impact Management	TANAP SAPURA	09/2017	02/10/2017	Received post audit
Employee Wage Overtime Payments	Employee Wage / Overtime Payments	TANAP		02/10/2017	Received post audit
Living Conditions	Living Conditions	TANAP		02/10/2017	Received post audit
Occupational Accident and Compensation	Occupational Accident and Compensation	TANAP		02/10/2017	Received post audit
Sapura_Turbidity_Monitoring_Data_All_Anatolian_Side-Station-1	RBR data file		29/07/2017	02/10/2017	Received post audit
Sapura_Turbidity_Monitoring_Data_All_Anatolian_Side-Station-2	RBR data file		30/09/2017	02/10/2017	Received post audit
Sapura_Turbidity_Monitoring_Data_All_European_Side	Online Turbidity Data Summary		29/09/2017	02/10/2017	Received post audit
Sapura_Turbidity_Monitoring_Table_Anatolian_Side-Station-1	Environmental Monitoring for TANAP Offshore Pipeline & Fibre Optic Cable Installation Project -	ENCON Laboratuvari A.S	26/07/2017	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
	Turbidity Monitoring Table (Anatolian Side – Station 1)				
Sapura_Turbidity_Monitoring_Table_Anatolian_Side-Station-2	Environmental Monitoring for TANAP Offshore Pipeline & Fibre Optic Cable Installation Project - Turbidity Monitoring Table (Anatolian Side – Station 2)	ENCON Laboratuvari A.S	17/09/2017	02/10/2017	Received post audit
Sapura_Turbidity_Monitoring_Table_European_Side	Environmental Monitoring for TANAP Offshore Pipeline & Fibre Optic Cable Installation Project - Turbidity Monitoring Table (European Side)	ENCON Laboratuvari A.S	29/09/2017	02/10/2017	Received post audit
SPK-ENV-FRM-002-005 - 12.09.17 PH	Incident Report – Environment	SAPURA energy TANAP	12/09/2017	02/10/2017	Received post audit
SPK-REP-ENV-DAR-003 Online Turbidity Reading Report- Final	High Online Turbidity Reading Report	SAPURAKENCANA	25/08/2017	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
		TANAP			
SPK-REP-HSE-DAR-001-P4-0 Incident Investigation Report - Dredging Oil Spill (1)	Oil Spill Incident Investigation Report - Dredging	SapuraKencana TANAP	06/07/2017	02/10/2017	Received post audit
Unfair Dismissal	R62 – List by Custom Field – Complaint Type: Unfair Dismissal	TANAP	19/09/2017	02/10/2017	Received post audit
Working Conditions	R62 – List by Custom Field – Complaint Type: Working Conditions	TANAP	19/09/2017	02/10/2017	Received post audit
Community SafetyLot 2 Spread 3_camiikebir	Consultation Form Training Attendance Form	SICIM Yuksel	18/12/2015	02/10/2017	Received post audit
Meetings Final Version	PowerPoint: Process of Preconstruction Meetings, Consultation Meetings,				Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
	Women Meetings, Safety Awareness Meetings for Children, Local Authority Meetings				
c__ckfinder_userfiles_DarDomain172_Project896_files_Lot 2 Spread 4_Emre Village -Trenching- Attendance List	Attendance list	Sicim Yuksel	29/12/2013	02/10/2017	Received post audit
c__ckfinder_userfiles_DarDomain172_Project896_files_Lot 2 Spread 4_Emre					Not in English Received post audit
Community Safety_Lot 2 Spread 4_Emre Village -Trenching- Consutation Form	Consultation Form	SICIM Yuksel Akkord	29/12/2013	02/10/2017	Received post audit
Meetings Final Version	PowerPoint: Process of Preconstruction Meetings, Consultation Meetings, Women Meetings,				Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
	Safety Awareness Meetings for Children, Local Authority Meetings				
c__ckfinder_userfiles_DarDomain172_Project896_files_Başsöğüt CSM Children	Attendance form	SICIM Yuksel AKKORD	09/08/2016	02/10/2017	Received post audit
Meetings Final Version	PowerPoint: Process of Preconstruction Meetings, Consultation Meetings, Women Meetings, Safety Awareness Meetings for Children, Local Authority Meetings			02/10/2017	Received post audit
Smart Steps Traffic Safety Trainings for Children - Başsöğüt	Lot 2: Individual Communication Report	TANAP	29/09/2017	02/10/2017	Received post audit
c__ckfinder_userfiles_DarDomain172_Project896_files_Ağıl Village Women Meeting Attend form	Attendance form: Community Safety Meeting with Women	SICIM Yuksel AKKORD	09/12/2016	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
Meetings Final Version	PowerPoint: Process of Preconstruction Meetings, Consultation Meetings, Women Meetings, Safety Awareness Meetings for Children, Local Authority Meetings			02/10/2017	Received post audit
Spread3_Ağıl Village Women Meeting İstişare form	Consultation Form	SICIM Yuksel AKKORD	09/12/2016	02/10/2017	Received post audit
c__ckfinder_userfiles_DarDomain172_Project896_files_Çayboyu - Attendance Form - Woman	Attendance form	SICIM Yuksel AKKORD	11/12/2016	02/10/2017	Received post audit
Meetings Final Version	PowerPoint: Process of Preconstruction Meetings, Consultation Meetings,				Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
	Women Meetings, Safety Awareness Meetings for Children, Local Authority Meetings				
Spread4_Çayboyu - Consultation Form - Woman	Consultation Form	SICIM Yuksel AKKORD	11/12/2017	02/10/2017	Received post audit
Meetings Final Version	PowerPoint: Process of Preconstruction Meetings, Consultation Meetings, Women Meetings, Safety Awareness Meetings for Children, Local Authority Meetings				Received post audit
Smart Steps Traffic Safety Trainings for Children - Cennetpınarı	Lot 2: Individual Communication Report: Smart Steps Traffic Safety Training	TANAP	08/05/2017	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
Summary of workforce related complaints	Workforce Related Complaints - Summary				Received post audit
Workforce by lots (September 2017)	WORKFORCE DATA BY LOTS (September 2017)		09/2017	02/10/2017	Received post audit
CIN-PRQ-PRC-GEN-013 Rev P3-C_12th quarterly monitoring	Quarterly Environmental and Social Monitoring Report (May – July 2017)	CINAR TANAP	14/09/2017	02/10/2017	Received post audit
ABB-PCD-HSE-GEN-029-P3-0.docx	Set of Health and Industrial Hygiene Management Policies, Procedures and Standards	Worley Parsons TANAP ABB	31/05/2016	02/10/2017	Received post audit
FRN-PCD-HSE-PL1-045-P4-2.docx	Health and Industrial Hygiene Procedures	TANAP FERNAS	08/12/2016	02/10/2017	Received post audit
PLK-PCD-HSM-PL4-002-P4-1	Health & Industrial Hygiene Management Procedure	Punj Lloyd Limak Kalyon Joint Venture Tanap	21/09/2017	02/10/2017	Received post audit
SYA-PLN-HSE-GEN-007-P4-0.docx	Health & Industrial Hygiene Management Plan	SICIM Yuksel	14/04/2015	02/10/2017	Received post audit

File Name	Document Name	Author/ Company	Rev/Date/ Reporting Period	Date Received	Comments
		AKKORD JV TANAP			
TKF-PLN-HSM-PL3-004-P4-0.doc	Industrial Hygiene Management Plan	TEKFEN TANAP	13/08/2015	02/10/2017	Received post audit
TKN-PLN-HSM-CSG-006	Industrial Hygiene Management Plan	Worley Parsons TANAP	30/03/2016	02/10/2017	Received post audit

APPENDIX C

COMPLIANCE AGAINST IFC EHS GUIDELINES

Appendix C: IFC EHS Guidelines Compliance Assessment Table

Demonstrates Compliance	Item is considered in compliance with Local and/or International requirements/standards (based on IESC review of TANAP ESIA)
Compliance Anticipated	Item is considered in compliance with Local and/or International requirements/standards (based on IESC site visit of construction corridor and TANAP operational standards and existing construction phase Environment, Social and OHS documentation)
Partial Compliance	Project's progress and/or information/data available to date are partially adequate to fulfil Local and/or International requirements/standards, further work is needed to achieve compliance
Not Applicable	Item does not apply to this Project

General IFC EHS Guidelines Requirements	**Compliance Category**
Environmental Protection	
1. Air Emissions and Ambient Air Quality	
Ambient Air Quality	
1.1. Emissions do not result in pollutant concentrations that reach or exceed relevant ambient quality guidelines and standards by applying national legislated standards, or in their absence, the current WHO Air Quality Guidelines.	**Demonstrates Compliance**
1.2. Projects with significant sources of air emissions, and potential for significant impacts to ambient air quality, should prevent or minimize impacts by ensuring that: emissions do not contribute a significant portion to the attainment of relevant ambient air quality guidelines or standards. As a general rule, this Guideline suggests 25 percent of the applicable air quality standards to allow additional, future sustainable development in the same airshed.	**Demonstrates Compliance**
1.3. At facility level, impacts should be estimated through qualitative or quantitative assessments by the use of baseline air quality assessments and atmospheric dispersion models to assess potential ground level concentrations. Local atmospheric, climatic, and air quality data should be applied when modeling dispersion, protection against atmospheric downwash, wakes, or eddy effects of the source, nearby structures, and terrain features. The dispersion model applied should be internationally recognised, or comparable.	**Demonstrates Compliance**
1.4. Facilities or projects located within poor quality airsheds, and within or next to areas established as ecologically sensitive (e.g. national parks), should ensure that any	**Demonstrates Compliance**

increase in pollution levels is as small as feasible, and amounts to a fraction of the applicable short-term and annual average air quality guidelines or standards as established in the project-specific environmental assessment. Suitable mitigation measures should also include the relocation of significant sources of emissions outside the airshed in question, use of cleaner fuels or technologies, application of comprehensive pollution control measures, offset activities at installations controlled by the project sponsor or other facilities within the same airshed, and buy-down of emissions within the same airshed.	
Point Sources	
1.5. The stack height for all point sources of emissions should be designed according to good international industry practice (GIP).	**Compliance Anticipated**
1.6. Emissions from small combustion process installations (3 MWth - 50 MWth), operated more than 500 hours per year, and those with an annual capacity utilisation of more than 30 percent should be in compliance with standards, recommended by General EHS guidelines of IFC.	**Not Applicable**
Fugitive Sources	
1.7. Volatile Organic Compounds (VOC) emissions associated with equipment leaks should be prevented and controlled by techniques including: • Equipment modifications; • Implementation a leak detection and repair (LDAR) program that controls fugitive emissions by regularly monitoring to detect leaks, and implementing repairs within a predefined time period; • Substitution of less volatile substances; • Collection of vapours through air extractors and subsequent; • Treatment with destructive control devices; • Use of floating roofs on storage tanks.	**Demonstrates Compliance**
1.8. Dust control methods should be implemented to prevent particulate matter (dust) emissions including the following: • Covers, water suppression, or increased moisture content for open materials storage piles; • Use of water suppression for control of loose materials on paved or unpaved road surfaces.	**Demonstrates Compliance**
1.9. Open burning of solid wastes, whether hazardous or nonhazardous, is not considered good practice and should be avoided.	**Demonstrates Compliance**
1.10. No new systems or processes should be installed using CFCs, halons, 1,1,1-trichloroethane, carbon tetrachloride, methyl bromide or HBFCs.	**Demonstrates Compliance**
Mobile Sources – Land-based	
1.11 Emissions from on-road and off-road vehicles should comply with national or regional programs. In the absence of these, the following approach should be considered: • Implementation of the manufacturer recommended engine maintenance programs;	**Demonstrates Compliance**

• Drivers should be instructed on the benefits of driving practices that reduce both the risk of accidents and fuel consumption, including measured acceleration and driving within safe speed limits; • Operators with fleets of 120 or more units of heavy duty vehicles, or 540 or more light duty vehicles within an airshed should consider additional ways to reduce potential impacts including replacing older vehicles with newer, more fuel efficient alternatives; Converting high-use vehicles to cleaner fuels, where feasible; • Installing and maintaining emissions control devices, such as catalytic converters; Implementing a regular vehicle maintenance and repair program.	
Greenhouse Gases (GHGs)	
1.12. The following measures should be implemented to reduce and control greenhouse gases: • Protection and enhancement of sinks and reservoirs of greenhouse gases; • Carbon capture technologies; • Limitation and / or reduction of methane emissions; • Enhancement of energy efficiency.	**Demonstrates Compliance**
Air quality monitoring	
1.13. Air quality monitoring program should be developed. The monitoring parameters selected should reflect the pollutants of concern associated with project processes. The air quality monitoring program should consider the following elements: • baseline calculations; • monitoring type and frequency (data on emissions and ambient air quality generated through the monitoring program should be representative of the emissions discharged by the project over time); • monitoring locations; • sampling and analysis methods (monitoring programs should apply national or international methods for sample collection and analysis).	**Demonstrates Compliance**
1.14. Annual Stack Emission Testing of boilers with capacities between =3 MWth and < 20 MWth should be carried out to control SO2, NOx and PM (for gaseous fuel- fired boilers, only NOx). SO2 can be calculated based on fuel quality certification if no SO2 control equipment is used. If Annual Stack Emission Testing demonstrates results consistently and significantly better than the required levels, frequency of Annual Stack Emission Testing can be reduced from annual to every two or three years. Annual Stack Emission Testing of boilers with capacities between =20 MWth and < 50 MWth should be carried out to control SO2, NOx and PM (for gaseous fuel-fired boilers, only NOx). Emission Monitoring: • SO2. Plants with SO2 control equipment: Continuous. • NOx: Continuous monitoring of either NOx emissions or indicative NOx emissions using combustion parameters. • PM: Continuous monitoring of either PM emissions, opacity, or indicative PM emissions using combustion parameters / visual monitoring.	**N/A, to be checked during operations**

1.14. Air quality monitoring for turbines should include: • Annual Stack Emission Testing: NOx, SO2 and PM (NOx only for gaseous fuel-fired diesel engines). • If Annual Stack Emission Testing results show constantly (3 consecutive years) and significantly (e.g. less than 75 percent) better than the required levels, frequency of Annual Stack Emission Testing can be reduced from annual to every two or three years. • Emission Monitoring: NOx: Continuous monitoring of either NOx emissions or indicative NOx emissions using combustion parameters. SO2: Continuous monitoring if SO2 control equipment is used. PM: Continuous monitoring of either PM emissions or indicative PM emissions using operating parameters.	**N/A, to be checked during operations**
2. Energy Conservation	
Energy Management Programs	
2.1. Energy management programs should include the following elements: • Identification, and regular measurement and reporting of principal energy flows within a facility at unit process level; • Preparation of mass and energy balance; • Definition and regular review of energy performance targets, which are adjusted to account for changes in major influencing factors on energy use; • Regular comparison and monitoring of energy flows with performance targets to identify where action should be taken to reduce energy use; • Regular review of targets, which may include comparison with benchmark data, to confirm that targets are set at appropriate levels.	**Compliance Anticipated**
Energy Efficiency	
2.2. For any energy-using system, a systematic analysis of energy efficiency improvements and cost reduction opportunities should include a hierarchical examination of opportunities to: • Demand/Load Side Management by reducing loads on the energy system; • Supply Side Management by reduce losses in energy distribution; improve energy conversion efficiency; exploit energy purchasing opportunities; use lower- carbon fuels.	**Compliance Anticipated**
2.3. In process heating systems, a system heat and mass balance should be developed for examination of savings opportunities.	**Compliance Anticipated**
2.4. Special measures for heating load reduction should be used including the following: • Ensure adequate insulation to reduce heat losses through furnace/oven etc. structure; • Recover heat from hot process or exhaust streams to reduce system loads; • In intermittently-heated systems, consider use of low thermal mass insulation to reduce energy required to heat the system structure to operating temperature; • Control process temperature and other parameters accurately to avoid, for example, overheating or overdrying;	**Compliance Anticipated**

• Examine opportunities to use low weight and/or low thermal mass product carriers, such as heated shapers, kiln cars etc.; • Review opportunities to schedule work flow to limit the need for process reheating between stages; • Operate furnaces/ovens at slight positive pressure, and maintain air seals to reduce air in-leakage into the heated system, thereby reducing the energy required to heat unnecessary air to system operating temperature; • Robust Scheduled maintenance programs.	
2.5. Losses in heat distribution systems should be reduced through the following actions: • Promptly repair distribution system leaks; • Regularly verify correct operation of steam traps in steam systems, and ensure that traps are not bypassed; • Insulate distribution system vessels, such as hot wells and de-aerators, in steam systems and thermal fluid or hot water storage tanks; • In steam systems, return condensate to the boiler house for re-use, since condensate is expensive boiler-quality water and valuable beyond its heat content alone.	**Compliance Anticipated**
2.6. The following efficiency opportunities should be examined for process furnaces or ovens, and utility systems, such as boilers and fluid heaters: • Regularly monitor CO, oxygen or CO2 content of flue gases to verify that combustion systems are using the minimum practical excess air volumes; • Consider combustion automation using oxygen-trim controls; • Minimise the number of boilers or heaters used to meet loads; • Use flue dampers to eliminate ventilation losses from hot boilers held at standby; • Maintain clean heat transfer surfaces; • In steam boiler systems, use economisers to recover heat from flue gases to pre-heat boiler feed water or combustion air; • Adopt automatic (continuous) boiler blowdown; • Recover heat from blowdown systems through flash steam recovery or feed- water preheat; • With fired heaters, consider opportunities to recover heat to combustion air through the use of recuperative or regenerative burner systems; • Oxy Fuel burners; • Fuel quality control/fuel blending and etc.	**Compliance Anticipated**
2.7. Special measures to improve process cooling efficiency should be used including the following: • Ensure adequate insulation; • Control process temperature; • Operate cooling tunnels at slight positive pressure and maintain air seals to reduce air in-leakage into the cooled system; • Examine opportunities to pre-cool using heat recovery to a process stream requiring heating, or by using a higher temperature cooling utility;	**Compliance Anticipated**

• In cold and chill stores, minimise heat gains to the cooled space by use of air curtains, entrance vestibules, or rapidly opening/closing doors; • Do not use refrigeration for auxiliary cooling duties, such as compressor cylinder head or oil cooling; • Use energy efficiency techniques in air conditioning applications.	
2.8. The efficiency of cooling systems should be improved by effective refrigeration system design and increased refrigerant compression efficiency, as well as minimisation of the temperature difference through which the system works and of auxiliary loads used to operate the refrigeration system.	**Compliance Anticipated**
2.9. Refrigerant compression efficiency should be improved by avoiding operation of multiple compressors at part-load conditions; considering turndown efficiency when specifying chillers.	**Compliance Anticipated**
2.10. Energy use of refrigeration system auxiliaries (e.g. evaporator fans and chilled water pumps) should be reduced.	**Compliance Anticipated**
Compressed Air Systems	
2.11. Special energy conservation measures should be used including : • examination of each true user of compressed air to identify the air volume needed and the pressure at which this should be delivered; • air use reduction opportunities review.	**Compliance Anticipated**
2.12. Monitoring of pressure losses in filters should be provided. Adequately sized distribution pipework designed to minimise pressure losses should be used.	**Compliance Anticipated**
3. Wastewater and Ambient Water Quality	
General applicability and approach	
3.1. In the context of their overall ESHS management system, facilities should understand the quality, quantity, frequency and sources of liquid effluents in its installations.	**Demonstrates Compliance**
3.2. Segregation of liquid effluents principally along industrial, utility, sanitary, and rainwater categories should be planed and implemented, in order to limit the volume of water requiring specialised treatment.	**Demonstrates Compliance**
3.3. Opportunities should be identified to prevent or reduce wastewater pollution through such measures as recycle/reuse within their facility, input substitution, or process modification.	**Demonstrates Compliance**
3.4. Wastewater discharges should be compliant with the applicable: (i) discharge standard (if the wastewater is discharged to a surface water or sewer), and (ii) water quality standard for a specific reuse.	**Demonstrates Compliance**
3.5. Water use efficiency should be provided to reduce the amount of wastewater generation.	**Demonstrates Compliance**
3.6. Process modification should be implemented, including waste minimisation, and reducing the use of hazardous materials to reduce the load of pollutants requiring treatment.	**Demonstrates Compliance**

3.7. When wastewater treatment is required prior to discharge, the level of treatment should be based on: • National and local standards as reflected in permit requirements and sewer system capacity to convey and treat wastewater if discharge is to sanitary sewer; • Assimilative capacity of the receiving water for the load of contaminant being discharged wastewater if discharge is to surface water; • Intended use of the receiving water body; • Presence of sensitive receptors; • GIP for the relevant industry sector.	**Demonstrates Compliance**
Liquid Effluent Quality	
3.8. Discharges of process wastewater, sewage, wastewater from utility operations or rainwater to surface water should not result in contaminant concentrations in excess of local ambient water quality criteria or, in the absence of local criteria, other sources of ambient water quality. Receiving water use and assimilative capacity, taking other sources of discharges to the receiving water into consideration, should also influence the acceptable pollution loadings and effluent discharge quality. Temperature of wastewater prior to discharge should not result in an increase greater than 3°C of ambient temperature at the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use and assimilative capacity among other considerations.	**Demonstrates Compliance**
3.9. Discharges of industrial wastewater, sewage, wastewater from utility operations or rainwater into public or private wastewater treatment systems should: • Meet the pre-treatment and monitoring requirements of the sewer treatment system into which it discharges; • Not interfere, directly or indirectly, with the operation and maintenance of the collection and treatment systems, or pose a risk to worker health and safety, or adversely impact characteristics of residuals from wastewater treatment operations; • Be discharged into municipal or centralised wastewater treatment systems that have adequate capacity to meet local regulatory requirements for treatment of wastewater Generated from the project. Pre-treatment of wastewater to meet regulatory requirements before discharge from the project site is required if the municipal or centralised wastewater treatment system receiving wastewater from the project does not have adequate capacity to maintain regulatory compliance.	**Demonstrates Compliance**
3.10. The quality of treated process wastewater, wastewater from utility operations or rainwater discharged on land, including wetlands, should be established based on local regulatory requirements. Where land is used as part of the treatment system and the ultimate receptor is surface water, water quality guidelines for surface water discharges specific to the industry sector process should apply. Potential impact on soil, groundwater, and surface water, in the context of protection, conservation and long term sustainability of water and land resources should be assessed when land is used as part of any wastewater treatment system.	**Demonstrates Compliance**
3.11. Septic systems should be used for treatment and disposal of domestic sanitary sewage in areas with no sewerage collection networks. When septic systems are the selected form of wastewater disposal and treatment, they should be:	**Demonstrates Compliance**

• Properly designed and installed in accordance with local regulations and guidance to prevent any hazard to public health or contamination of land, surface or groundwater. • Well maintained to allow effective operation. • Installed in areas with sufficient soil percolation for the design wastewater loading rate. • Installed in areas of stable soils that are nearly level, well drained, and permeable, with enough separation between the drain field and the groundwater table or other receiving waters.	
3.12. Treatment technologies should be used to achieve the desired discharge quality for process wastewater and to maintain consistent compliance with regulatory requirements. The design and operation of the selected wastewater treatment technologies should avoid uncontrolled air emissions of volatile chemicals from wastewaters. Residuals from industrial wastewater treatment operations should be disposed in compliance with local regulatory requirements. Recommended water management strategies for utility operations include: • Adoption of water conservation opportunities for facility cooling systems; • Use of heat recovery methods or other cooling methods to reduce the temperature of heated water prior to discharge to ensure the discharge water temperature does not result in an increase greater than 3°C of ambient temperature; • Minimising use of antifouling and corrosion inhibiting chemicals by ensuring appropriate depth of water intake and use of screens; • Testing for residual biocides and other pollutants of concern should be conducted to determine the need for dose adjustments or treatment of cooling water prior to discharge. Rainwater should be separated from process and sewage streams. Surface runoff from process areas or potential sources of contamination should be prevented. Runoff from process and storage areas should be segregated from potentially less contaminated runoff. Runoff from areas without potential sources of contamination should be minimised. Sludge from rainwater catchments or collection and treatment systems should be disposed in compliance with local regulatory requirements, in the absence of which disposal has to be consistent with protection of public health and safety, and conservation and long term sustainability of water and land resources.	**Demonstrates Compliance**
3.13. Recommended sewage management strategies include: • Segregation of wastewater streams to ensure compatibility with selected treatment option; • Segregation and pre-treatment of oil and grease containing effluents prior to discharge into sewer systems; • If sewage from the industrial facility is to be discharged to surface water, treatment to meet national or local standards for sewage discharges; • If sewage from the industrial facility is to be discharged to either a septic system, or where land is used as part of the treatment system, treatment to meet applicable national or local standards for sewage discharges is required; • Sludge from sewage treatment systems should be disposed in compliance with local regulatory requirements.	**Demonstrates Compliance**
3.14. A wastewater and water quality monitoring program with adequate resources and management oversight should be developed and implemented. The wastewater and	**Demonstrates Compliance**

water quality monitoring program should consider monitoring parameters, monitoring type and frequency, monitoring locations, data quality.	
4. Water Conservation	
Water conservation program	
4.1. Water conservation programs should be implemented commensurate with the magnitude and cost of water use. These programs should promote the continuous reduction in water consumption and achieve savings in the water pumping, treatment and disposal costs.	**Demonstrates Compliance**
4.2. The essential elements of a water management program should involve: • Identification, regular measurement, and recording of principal flows within a facility. • Definition and regular review of performance targets, which are adjusted to account for changes in major factors affecting water use. • Regular comparison of water flows with performance targets to identify where action should be taken to reduce water use. 4.3. Water should be reused in multi-stage washing and rinsing processes or from one process for another with less exacting water quality requirements.	**Demonstrates Compliance**
4.4. Measures for water saving should be implemented to reduce consumption of building and sanitary water, including: • Regularly maintain plumbing, and identify and repair leaks; • Install self-closing taps, automatic shut-off valves, spray nozzles, pressure reducing valves, and water conserving fixtures; • Operate dishwashers and laundries on full loads, and only when needed; • Install water-saving equipment in lavatories, such as lowflow toilets.	**Demonstrates Compliance**
4.5. Water conservation opportunities in cooling systems should include: • Use of closed circuit cooling systems with cooling towers rather than once-through cooling systems; • Limiting condenser or cooling tower blowdown to the minimum required to prevent unacceptable accumulation of dissolved solids; • Use of air cooling rather than evaporative cooling; • Use of treated waste water for cooling towers; • Reusing/recycling cooling tower blowdown.	**Demonstrates Compliance**
4.6. Large quantities of water may be used by steam systems, and this should be reduced by the following measures: • Repair of steam and condensate leaks, and repair of all failed steam traps; • Return of condensate to the boiler house, and use of heat exchangers (with condensate return) rather than direct steam injection where process permits; • Flash steam recovery; • Minimising boiler blowdown consistent with maintaining acceptably low dissolved solids in boiler water; • Minimising deaerator heating.	**Demonstrates Compliance**
5. Hazardous Materials Management	

General Hazardous Materials Management	
5.1. The level of risk should be established through an on-going assessment process based on: • The types and amounts of hazardous materials present in the project. • Analysis of potential spill and release scenarios using available industry statistics on spills and accidents where available. • Analysis of the potential for uncontrolled reactions such as fire and explosions. • Analysis of potential consequences based on the physical geographical characteristics of the project site, including aspects such as its distance to settlements, water resources, and other environmentally sensitive areas.	**Demonstrates Compliance**
5.2. The management actions to be included in a Hazardous Materials Management Plan should be commensurate with the level of potential risks associated with the production, handling, storage, and use of hazardous materials.	**Demonstrates Compliance**
5.3. Where there is risk of a spill of uncontrolled hazardous materials, facilities should prepare a spill control, prevention, and countermeasure plan as a specific component of their Emergency Preparedness and Response Plan.	**Demonstrates Compliance**
5.4. The plan should be tailored to the hazards associated with the project, and include: • Training of Operators on release prevention, including drills specific to hazardous materials as part of emergency preparedness response training; • Implementation of inspection programs to maintain the mechanical integrity and operability of pressure vessels, tanks, piping systems, relief and vent valve systems, containment infrastructure, emergency shutdown systems, controls and pumps, and associated process equipment; • Preparation of written Standard Operating Procedures (SOPs) for filling USTs, ASTs or other containers or equipment as well as for transfer operations by personnel trained in the safe transfer and filling of the hazardous material, and in spill prevention and response; • SOPs for the management of secondary containment structures; • Identification of locations of hazardous materials and associated activities on an emergency plan site map; • Documentation of availability of specific personal protective equipment and training needed to respond to an emergency; • Documentation of availability of spill response equipment; • Description of response activities in the event of a spill, release, or other chemical emergency.	**Demonstrates Compliance**
5.5. Recommended practices to prevent hazardous material releases from transfer processes include: • Use of transfer equipment that is compatible and suitable for the characteristics of the materials transferred and designed to ensure safe transfer; • Regular inspection, maintenance and repair of fittings, pipes and hoses; • Provision of secondary containment, drip trays or other overflow and drip containment measures, for hazardous materials containers at connection points or other possible overflow points.	**Demonstrates Compliance**

5.6. Special measures should be implemented to prevent overfills of vessels and tanks, including: • Prepare written procedures for transfer operations; • Installation of gauges on tanks to measure volume inside; • Use of dripless hose connections for vehicle tank and fixed connections with storage tanks; • Provision of automatic fill shutoff valves on storage tanks to prevent overfilling; • Use of a catch basin around the fill pipe to collect spills; • Use of piping connections with automatic overfill protection; • Pumping less volume than available capacity into the tank or vessel by ordering less material than its available capacity; • Provision of overfill or over pressure vents that allow controlled release to a capture point.	**Demonstrates Compliance**
5.7. Special measures should be implemented to avoid uncontrolled reactions or conditions resulting in fire or explosion, including: • Storage of incompatible materials (acids, bases, flammables, oxidisers, reactive chemicals) in separate areas, and with containment facilities separating material storage areas; • Provision of material-specific storage for extremely hazardous or reactive materials; • Use of flame arresting devices on vents from flammable storage containers; • Provision of grounding and lightning protection for tank farms, transfer stations, and other equipment that handles flammable materials; • Selection of materials of construction compatible with products stored for all parts of storage and delivery systems, and avoiding reuse of tanks for different products without checking material compatibility; • Storage of hazardous materials in an area of the facility separated from the main production works. Where proximity is unavoidable, physical separation should be provided using structures designed to prevent fire, explosion, spill, and other emergency situations from affecting facility operations; • Prohibition of all sources of ignition from areas near flammable storage tanks.	**Demonstrates Compliance**
Control Measures	
5.8. Secondary containment should be used to control accidental releases of liquid hazardous materials during storage and transfer. Secondary containment design and construction should hold released materials effectively until they can be detected and safely recovered. Appropriate secondary containment structures consist of berms, dikes, or walls capable of containing the larger of 110 percent of the largest tank or 25 percent of the combined tank volumes in areas with above-ground tanks with a total storage volume equal or greater than 1,000 liters.	**Demonstrates Compliance**
5.9. Transfer of hazardous materials from vehicle tanks to storage should be affected in areas with surfaces sufficiently impervious to avoid loss to the environment and sloped to a collection or a containment structure not connected to municipal wastewater / rainwater collection system.	**Demonstrates Compliance**
5.10. Where it is not practical to provide permanent, dedicated containment structures for transfer operations, one or more alternative forms of spill containment should be provided, such as portable drain covers, automatic shut-off valves on storm water	**Demonstrates Compliance**

basins, or shut off valves in drainage or sewer facilities, combined with oil-water separators.	
5.11. Storage of drummed hazardous materials with a total volume equal or greater than 1,000 liters should be affected in areas with impervious surfaces that are sloped or bermed to contain a minimum of 25 percent of the total storage volume.	**Demonstrates Compliance**
5.12. Double-walled, composite, or specially coated storage and piping systems should be used particularly for underground storage tanks (USTs) and underground piping. If double walled systems are used, they should provide a means of detecting leaks between the two walls.	**Demonstrates Compliance**
5.13. Leak detection may be used in conjunction with secondary containment, particularly in high-risk locations. Leak detection is especially important in situations where secondary containment is not feasible or practicable, such as in long pipe runs. Acceptable leak detection methods include: • Use of automatic pressure loss detectors on pressurised or long distance piping; • Use of approved or certified integrity testing methods on piping or tank systems, at regular intervals; • Considering the use of SCADA if financially feasible.	**Demonstrates Compliance**
5.14. Special measures should be implemented for underground storage of hazardous materials to manage the risks of fire or explosion, vapor losses into the atmosphere, leaks of hazardous materials, including: • Avoiding use of USTs for storage of highly soluble organic materials; • Assessing local soil corrosion potential, and installing and maintaining cathodic protection (or equivalent rust protection) for steel tanks; • For new installations, installing impermeable liners or structures under and around tanks and lines that direct any leaked product to monitoring ports at the lowest point of the liner or structure; • Monitoring the surface above any tank for indications of soil movement; • Reconciling tank contents by measuring the volume in store with the expected volume, given the stored quantity at last stocking, and deliveries to and withdrawals from the store; • Testing integrity by volumetric, vacuum, acoustic, tracers, or other means on all tanks at regular intervals; • Evaluating the risk of existing UST in newly acquired facilities to determine if upgrades are required for USTs that will be continued to be used, including replacement with new systems or permanent closure of abandoned USTs.	**Demonstrates Compliance**
5.15. Hazardous Materials Risk Management Plan should be prepared to prevent and control of catastrophic releases of toxic, reactive, flammable, or explosive chemicals that may result in toxic, fire, or explosion hazards.	**Demonstrates Compliance**
5.16. An Emergency Preparedness and Response Plan incorporated into and consistent with, the facility's overall ES/OHS MS, should be prepared to cover the following: • Planning Coordination: Procedures should be prepared for informing the public and emergency response agencies; documenting first aid and emergency medical treatment; taking emergency response actions; reviewing and updating the emergency response plan to reflect changes, and ensuring that employees are informed of such changes;	**Demonstrates Compliance**

• Procedures should be prepared for using, inspecting, testing, and maintaining the emergency response equipment; • Employees and contractors should be trained on emergency response procedures.	
5.17. When hazardous materials are in use above threshold quantities, the management plan should include a system for community awareness, notification and involvement that should be commensurate with the potential risks identified for the project during the hazard assessment studies (availability of general information to the potentially affected community on the nature and extent of project operations, and the prevention and control measures in place to ensure no effects to human health; the potential for off-site effects to human health or the environment following an accident at planned or existing hazardous installations; specific and timely information on appropriate behavior and safety measures to be adopted in the event of an accident including practice drills in locations with higher risks).	**Demonstrates Compliance**
6. Waste Management	
General Waste Management	
6.1. Facilities that generate and store wastes should practice the following: • Establishing waste management priorities at the outset of activities based on an understanding of potential Environmental, Health, and Safety (EHS) risks and impacts and considering waste generation and its consequences; • Establishing a waste management hierarchy that considers prevention, reduction, reuse, recovery, recycling, removal and finally disposal of wastes; • Avoiding or minimising the generation waste materials, as far as practicable; • Where waste generation cannot be avoided but has been minimised, recovering and reusing waste; • Where waste cannot be recovered or reused, treating, destroying, and disposing of it in an environmentally sound manner.	**Demonstrates Compliance**
6.2. Effective planning and implementation of waste management strategies should include: • Review of new waste sources during planning, siting, and design activities, including during equipment modifications and process alterations, to identify expected waste generation, pollution prevention opportunities, and necessary treatment, storage, and disposal infrastructure; • Definition of opportunities for source reduction, as well as reuse and recycling; • Definition of procedures and operational controls for onsite storage; • Definition of options / procedures / operational controls for treatment and final disposal.	**Demonstrates Compliance**
6.3. Potential impacts and risks associated with the management of any generated hazardous waste should be assessed during its complete life cycle.	**Demonstrates Compliance**
6.4. It should be ensured that contractors handling, treating, and disposing of hazardous waste are reputable and legitimate enterprises, licensed by the relevant regulatory agencies and following good international industry practice for the waste being handled.	**Demonstrates Compliance**

6.5. Processes should be designed and operated to prevent, or minimise, the quantities of wastes generated, and hazards associated with the wastes generated in accordance with the following strategy: • Substituting raw materials or inputs with less hazardous or toxic materials, or with those where processing generates lower waste volumes; • Applying manufacturing process that convert materials efficiently; • Instituting good housekeeping and operating practices, including inventory control to reduce the amount of waste resulting from materials that are out-of- date, off-specification, contaminated, damaged, or excess to plant needs; • Instituting procurement measures that recognise opportunities to return usable materials such as containers and which prevents the over ordering of materials; • Minimising hazardous waste generation by implementing stringent waste segregation to prevent the commingling of non-hazardous and hazardous waste to be managed.	**Demonstrates Compliance**
6.6. Total amount of waste may be significantly reduced through the implementation of recycling plans, which should consider the following elements: • Identification and recycling of products that can be reintroduced into the manufacturing process or industry activity at the site; • Investigation of external markets for recycling by other industrial processing operations located in the neighbourhood or region of the facility; • Providing training and incentives to employees in order to meet objectives.	**Demonstrates Compliance**
6.7. If waste materials are still generated after the implementation of feasible waste prevention, reduction, reuse, recovery and recycling measures, waste materials should be treated and disposed of and all measures should be taken to avoid potential impacts to human health and the environment. Such measures should include the following: • On-site or off-site biological, chemical, or physical treatment of the waste material to render it nonhazardous prior to final disposal; • Treatment or disposal at permitted facilities specially designed to receive the waste.	**Compliance Anticipated**
6.8. In the absence of qualified commercial or government-owned waste vendors and disposal Operators (taking into consideration proximity and transportation requirements), facilities generating waste should consider using: • Have the technical capability to manage the waste in a manner that reduces immediate and future impact to the environment; • Installing on-site waste treatment or recycling processes; • As a final option, constructing facilities that will provide for the environmental sound long-term storage of wastes on-site or at an alternative appropriate location up until external commercial options become available.	**Demonstrates Compliance**
<u>Waste storage</u>	
6.9. Wastes should be stored in a manner that prevents the commingling or contact between incompatible wastes.	**Demonstrates Compliance**
6.10. Different type of wastes should be stored in different closed containers away from direct sunlight, wind and rain.	**Demonstrates Compliance**
6.11. Periodic inspections of waste storage areas should be conducted with documenting the findings.	**Demonstrates Compliance**

6.12. Secondary containment should be included wherever liquid wastes are stored in volumes greater than 220 liters. The available volume of secondary containment should be at least 110 percent of the largest storage container, or 25 percent of the total storage capacity (whichever is greater), in that specific location.	**Demonstrates Compliance**
6.13. Adequate ventilation should be provided where volatile wastes are stored.	**Demonstrates Compliance**
6.14. Hazardous waste storage activities should also be subject to special management actions, conducted by employees who have received specific training in handling and storage of hazardous wastes: • Provision of readily available information on chemical compatibility to employees, including labelling each container to identify its contents; • Clearly identifying (label) and demarcating the area, including documentation of its location on a facility map or site plan; • Conducting periodic inspections of waste storage areas and documenting the findings; • Preparing and implementing spill response and emergency plans to address their accidental release; • Avoiding underground storage tanks and underground piping of hazardous waste.	**Demonstrates Compliance**
Transportation	
6.15. On-site and Off-site transportation of waste should be conducted so as to prevent or minimise spills, releases, and exposures to employees and the public. All waste containers designated for off-site shipment should be secured and labeled with the contents and associated hazards, be properly loaded on the transport vehicles before leaving the site, and be accompanied by a shipping paper that describes the load and its associated hazards.	**Demonstrates Compliance**
Monitoring	
6.16. Monitoring activities associated with the management of hazardous and non-hazardous waste should include: • Regular visual inspection of all waste storage collection and storage areas for evidence of accidental releases and to verify that wastes are properly labelled and stored. • Regular audits of waste segregation and collection practices; • Periodic auditing of third party treatment, and disposal services including re-use and recycling facilities when significant quantities of hazardous wastes are managed by third parties; • Regular monitoring of groundwater quality in cases of Hazardous Waste on site storage and/or pre-treatment and disposal.	**Partial Compliance**
7. Noise	
Prevention and Control	
7.1. Noise impacts should not exceed the following levels: • 55 One Hour LAeq (dBA) at daytime for residential; institutional; educational receptors; • 45 One Hour LAeq (dBA) at night time for residential; institutional; educational receptors;	**Compliance Anticipated**

• 70 One Hour LAeq (dBA) at daytime and night time for industrial; commercial receptors.	
7.2. Noise prevention and mitigation measures should be applied where predicted or measured noise impacts from a project facility or operations exceed the applicable noise level guideline at the most sensitive point of reception. Noise reduction options that should be considered include: • Selecting equipment with lower sound power levels; • Installing silencers for fans; • Installing suitable mufflers on engine exhausts and compressor components; • Installing acoustic enclosures for equipment casing radiating noise; • Improving the acoustic performance of constructed buildings, apply sound insulation; • Limiting the hours of operation for specific pieces of equipment or operations, especially mobile sources operating through community areas; • Reducing project traffic routing through community areas wherever possible • Developing a mechanism to record and respond to complaints.	**Compliance Anticipated**
Monitoring	
7.3. Noise monitoring programs should be designed and conducted by trained specialists. Typical monitoring periods should be sufficient for statistical analysis.	**Compliance Anticipated**
8. Contaminated Land	
Prevention of land contamination	
8.1. Contamination of land should be avoided by preventing or controlling the release of hazardous materials, hazardous wastes, or oil to the environment.	**Compliance Anticipated**
8.2. When contamination of land is suspected or confirmed during any project phase, the cause of the uncontrolled release should be identified and corrected to avoid further releases and associated adverse impacts.	**Compliance Anticipated**
8.3. Contaminated lands should be managed to avoid the risk to human health and ecological receptors.	**Compliance Anticipated**
8.4. The preferred strategy for land decontamination is to reduce the level of contamination at the site while preventing the human exposure to contamination.	**Compliance Anticipated**
Risk assessment	
8.5. Where there is potential evidence of contamination at a site, the following steps should be provided: • Identification of the location of suspected highest level of contamination through a combination of visual and historical operational information; • Sampling and testing of the contaminated media (soils or water); • Evaluation of the analytical results against the local and national contaminated sites regulations; • Verification of the potential human and/or ecological receptors and exposure pathways relevant to the site in question.	**Compliance Anticipated**

8.6. Interim risk management actions should be implemented at any phase of the project life cycle if the presence of land contamination poses an "imminent hazard", i.e., representing an immediate risk to human health and the environment if contamination were allowed to continue, even a short period of time. Appropriate risk reduction should be implemented as soon as practicable to remove the condition posing the imminent hazard.	**Compliance Anticipated**
8.7. If the presence of land contamination poses an "imminent hazard", a detailed site-specific, environmental risk assessment should be used to develop strategies that yield acceptable health risks, while achieving low level contamination on-site.	**Compliance Anticipated**
8.8. The risk factors and conceptual site model within the contaminant risk approach described should also provide a basis to manage and mitigate environmental contaminant health risks.	**Compliance Anticipated**
Occupational Health and Safety	
9. General Facility Design and Operation	
Integrity of Workplace Structures	
9.1. Permanent and recurrent places of work should be designed and equipped to protect OHS: • Surfaces, structures and installations should be easy to clean and maintain, and not allow for accumulation of hazardous compounds; • Buildings should be structurally safe, provide appropriate protection against the climate, and have acceptable light and noise conditions; • Fire resistant, noise-absorbing materials should, to the extent feasible, be used for cladding on ceilings and walls; • Floors should be level, even, and non- skid; • Heavy oscillating, rotating or alternating equipment should be located in dedicated buildings or structurally isolated sections.	**Demonstrates Compliance**
Severe Weather and Facility Shutdown	
9.2. Work place structures should be designed and constructed to withstand the expected elements for the region and have an area designated for safe refuge, if appropriate.	**Demonstrates Compliance**
9.3. Standard Operating Procedures (SOPs) should be developed for project or process shut-down, including an evacuation plan. Drills to practice the procedure and plan should also be undertaken annually.	**Compliance Anticipated**
Workspace and Exit	
9.4. The space provided for each worker, and in total, should be adequate for safe execution of all activities, including transport and interim storage of materials and products. Passages to emergency exits should be unobstructed at all times. Exits should be clearly marked to be visible in total darkness. The number and capacity of emergency exits should be sufficient for safe and orderly evacuation of the greatest number of people present at any time, and there should be a minimum two exits from any work area. Facilities also should be designed and built taking into account the needs of disabled persons.	**Demonstrates Compliance**

Fire Precautions	
9.5. The workplace should be designed to prevent the start of fires through the implementation of fire codes applicable to industrial settings.	**Demonstrates Compliance**
9.6. Facilities should be equipped with fire detectors, alarm systems, and fire-fighting equipment. The equipment should be maintained in good working order and be readily accessible. It should be adequate for the dimensions and use of the premises, equipment installed, physical and chemical properties of substances present, and the maximum number of people present.	**Demonstrates Compliance**
9.7. Fire and emergency alarm systems that are both audible and visible.	**Demonstrates Compliance**
Lavatories and Showers	
9.8. Adequate lavatory facilities (toilets and washing areas) should be provided for the number of people expected to work in the facility and allowances made for segregated facilities, or for indicating whether the toilet facility is "In Use" or "Vacant". Toilet facilities should also be provided with adequate supplies of hot and cold running water, soap, and hand drying devices. Where workers may be exposed to substances poisonous by ingestion and skin contamination may occur, facilities for showering and changing into and out of street and work clothes should be provided.	**Demonstrates Compliance**
9.9. Adequate supplies of potable drinking water should be provided from a fountain with an upward jet or with a sanitary means of collecting the water for the purposes of drinking. Water supplied to areas of food preparation or for the purpose of personal hygiene (washing or bathing) should meet drinking water quality standards.	**Demonstrates Compliance**
9.10. Where there is potential for exposure to substances poisonous by ingestion, suitable arrangements are to be made for provision of clean eating areas where workers are not exposed to the hazardous or noxious substances.	**Demonstrates Compliance**
Safe Access	
9.11. Passageways for pedestrians and vehicles within and outside buildings should be segregated and provide for easy, safe, and appropriate access.	**Demonstrates Compliance**
9.12. Equipment and installations requiring servicing, inspection, and/or cleaning should have unobstructed, unrestricted, and ready access.	**Demonstrates Compliance**
9.13. Hand, knee and foot railings should be installed on stairs, fixed ladders, platforms, permanent and interim floor openings, loading bays, ramps, etc.	**Demonstrates Compliance**
9.14. Openings should be sealed by gates or removable chains.	**Demonstrates Compliance**
9.15. Covers should, if feasible, be installed to protect against falling items.	**Demonstrates Compliance**
9.16. Measures to prevent unauthorised access to dangerous areas should be in place.	**Demonstrates Compliance**
First Aid	

9.17. The employer should ensure that qualified first-aid can be provided at all times. Appropriately equipped first-aid stations should be easily accessible throughout the place of work.	**Demonstrates Compliance**
9.18. Eye-wash stations and/or emergency showers should be provided close to all workstations where immediate flushing with water is the recommended first-aid response.	**Demonstrates Compliance**
9.19. Remote sites should have written emergency procedures in place for dealing with cases of trauma or serious illness up to the point at which patient care can be transferred to an appropriate medical facility.	**Demonstrates Compliance**
Air Supply	
9.20. Sufficient fresh air should be supplied for indoor and confined work spaces. Factors to be considered in ventilation design include physical activity, substances in use, and process related emissions. Air distribution systems should be designed so as not to expose workers to draughts.	**Demonstrates Compliance**
9.21. Mechanical ventilation systems should be maintained in good working order. Point- source exhaust systems required for maintaining a safe ambient environment should have local indicators of correct functioning.	**Demonstrates Compliance**
9.22. Re-circulation of contaminated air is not acceptable. Air inlet filters should be kept clean and free of dust and microorganisms. Heating, ventilation and air conditioning (HVAC) and industrial evaporative cooling systems should be equipped, maintained and operated so as to prevent growth and spreading of disease agents or breeding of vectors of public health concern.	**Demonstrates Compliance**
10. Communication and Training	
OHS Training	
10.1. Provisions should be made to provide OHS orientation training to all new employees.	**Demonstrates Compliance**
10.2. Training should consist of basic hazard awareness, sites specific hazards, safe work practices, and emergency procedures for fire, evacuation, and natural disaster, as appropriate. Any site-specific hazard or color coding in use should be thoroughly reviewed as part of orientation training.	**Demonstrates Compliance**
10.3. If visitors to the site can gain access to areas where hazardous conditions or substances may be present, a visitor orientation and control program should be established to ensure visitors do not enter hazard areas unescorted.	**Demonstrates Compliance**
10.4. The employer should ensure that workers and contractors, prior to commencement of new assignments, have received adequate training and information enabling them to understand work hazards and to protect their health from hazardous ambient factors that may be present.	**Demonstrates Compliance**
10.5. A basic occupational training program and specialty courses should be provided, as needed, to ensure that workers are oriented. Workers with rescue and first-aid duties should receive dedicated training so as not to inadvertently aggravate exposures and health hazards to themselves or their coworkers. Training would include the risks of becoming infected with blood–borne pathogens through contact with bodily fluids and tissue. Through appropriate contract specifications and monitoring, the employer should ensure that service providers, as	**Demonstrates Compliance**

well as contracted and subcontracted labor, are trained adequately before assignments begin.	
Area Signage, Labeling of Equipment, Communicate Hazard Codes	
10.6. Hazardous areas (electrical rooms, compressor rooms, etc.), installations, materials, safety measures, and emergency exits, etc. should be marked appropriately. Signage should be in accordance with international standards and be well known to, and easily understood by workers, visitors and the general public as appropriate.	**Demonstrates Compliance**
10.7. All vessels that may contain substances that are hazardous as a result of chemical or toxicological properties, or temperature or pressure, should be labeled as to the contents and hazard, or appropriately color coded. Similarly, piping systems that contain hazardous substances should be labeled with the direction of flow and contents of the pipe, or color coded whenever the pipe passing through a wall or floor is interrupted by a valve or junction device.	**Demonstrates Compliance**
10.8. Copies of the hazard coding system should be posted outside the facility at emergency entrance doors and fire emergency connection systems.	**Demonstrates Compliance**
10.9. Information regarding the types of hazardous materials stored, handled or used at the facility, including typical maximum inventories and storage locations, should be shared proactively with emergency services and security personnel to expedite emergency response when needed.	**Demonstrates Compliance**
10.10. Representatives of local emergency and security services should be invited to participate in periodic (annual) orientation tours and site inspections to ensure familiarity with potential hazards present.	**Demonstrates Compliance**
11. Physical Hazards	
Rotating and Moving Equipment	
11.1. Machines design should eliminate trap hazards and ensuring that extremities are kept out of harm's way under normal operating conditions. Where a machine or equipment has an exposed moving part or exposed pinch point that may endanger the safety of any worker, the machine or equipment should be equipped with, and protected by, a guard or other device that prevents access to the moving part or pinch point. Guards should be designed and installed in conformance with appropriate machine safety standards.	**Demonstrates Compliance**
11.2. Turning off, disconnecting, isolating, and de-energising machinery with exposed or guarded moving parts, or in which energy can be stored (e.g. compressed air, electrical components) during servicing or maintenance, in conformance with a standard such as c.	**Demonstrates Compliance**
11.3. Designing and installing equipment, where feasible, to enable routine service, such as lubrication, without removal of the guarding devices or mechanisms.	**Demonstrates Compliance**
Noise	
11.4. No employee should be exposed to a noise level greater than 85 dB(A) for a duration of more than 8 hours per day without hearing protection. In addition, no unprotected ear should be exposed to a peak sound pressure level (instantaneous) of more than 140 dB(C).	**Demonstrates Compliance**

11.5. The use of hearing protection should be enforced actively when the equivalent sound level over 8 hours reaches 85 dB(A), the peak sound levels reach 140 dB(C), or the average maximum sound level reaches 110dB(A). Hearing protective devices provided should be capable of reducing sound levels at the ear to at least 85 dB(A).	**Demonstrates Compliance**
11.6. For every 3 dB(A) increase in sound levels, the 'allowed' exposure period or duration should be reduced by 50 percent.	**Demonstrates Compliance**
11.7. Prior to the issuance of hearing protective devices as the final control mechanism, use of acoustic insulating materials, isolation of the noise source, and other engineering controls should be investigated and implemented.	**Demonstrates Compliance**
11.8. Periodic medical hearing checks should be performed on workers exposed to high noise levels.	**Demonstrates Compliance**
Vibration	
11.9. Exposure to hand-arm vibration from equipment such as hand and power tools, or whole-body vibrations from surfaces on which the worker stands or sits, should be controlled through choice of equipment, installation of vibration dampening pads or devices, and limiting the duration of exposure. Exposure levels should be checked on the basis of daily exposure time and data provided by equipment manufacturers.	**Demonstrates Compliance**
Electrical	
11.10. All energised electrical devices and lines should be marked with warning signs.	**Demonstrates Compliance**
11.11. Devices should be locked out (de- charging and leaving open with a controlled locking device) and tagged-out (warning sign placed on the lock) during service or maintenance.	**Demonstrates Compliance**
11.12. All electrical cords, cables, and hand power tools should be checked for frayed or exposed cords. Manufacturer recommendations for maximum permitted operating voltage of the portable hand tools should be followed.	**Demonstrates Compliance**
11.13. Double insulating / grounding should be applied for all electrical equipment used in environments that are, or may become, wet; using equipment with ground fault interrupter (GFI) protected circuits.	**Demonstrates Compliance**
11.14. Power cords and extension cords should be protected against damage from traffic by shielding or suspending above traffic areas.	**Demonstrates Compliance**
11.15. Use of appropriate labeling of service rooms housing high voltage equipment ('electrical hazard') and where entry is controlled or prohibited.	**Demonstrates Compliance**
11.16. "No Approach" zones should be established around or under high voltage power lines.	**Partial Compliance**
11.17. Rubber tired construction or other vehicles that come into direct contact with, or arcing between, high voltage wires may need to be taken out of service for periods of 48 hours and have the tires replaced to prevent catastrophic tire and wheel assembly failure, potentially causing serious injury or death.	**Demonstrates Compliance**
11.18. Conduct detailed identification and marking of all buried electrical wiring prior to any excavation work.	**Demonstrates Compliance**
Eye Hazards	

11.19. Use of machine guards or splash shields and/or face and eye protection devices, such as safety glasses with side shields, goggles, and/or a full face shield. Machine and equipment guarding should conform to standards published by organisations such as CSA, ANSI and ISO.	**Demonstrates Compliance**
11.20. Moving areas where the discharge of solid fragments, liquid, or gaseous emissions can reasonably be predicted away from places expected to be occupied or transited by workers or visitors. Where machine or work fragments could present a hazard to transient workers or passers-by, extra area guarding or proximity restricting systems should be implemented, or PPE required for transients and visitors.	**Demonstrates Compliance**
11.21. Provisions should be made for persons who have to wear prescription glasses either through the use over glasses or prescription hardened glasses.	**Demonstrates Compliance**
Welding / Hot Work	
11.22. Provision of proper eye protection such as welder goggles and/or a full-face eye shield for all personnel involved in, or assisting, welding operations. Additional methods may include the use of welding barrier screens around the specific work station (a solid piece of light metal, canvas, or plywood designed to block welding light from others). Devices to extract and remove noxious fumes at the source may also be required.	**Demonstrates Compliance**
11.23. Special hot work and fire prevention precautions and Standard Operating Procedures (SOPs) should be implemented if welding or hot cutting is undertaken outside established welding work stations, including 'Hot Work Permits, stand-by fire extinguishers, stand-by fire watch, and maintaining the fire watch for up to one hour after welding or hot cutting has terminated. Special procedures are required for hot work on tanks or vessels that have contained flammable materials.	**Demonstrates Compliance**
Industrial Vehicle Driving and Site Traffic	
11.24. Provide training and licensing industrial vehicle Operators in the safe operation of specialised vehicles such as forklifts, including safe loading/unloading, load limits.	**Demonstrates Compliance**
11.25. Ensure moving equipment with restricted rear visibility is outfitted with audible back-up alarms.	**Demonstrates Compliance**
11.26. Establish rights-of-way, site speed limits, vehicle inspection requirements, operating rules and procedures, and control of traffic patterns or direction. Restrict the circulation of delivery and private vehicles to defined routes and areas, giving preference to 'one-way' circulation, where appropriate.	**Demonstrates Compliance**
Working Environment Temperature	
11.27. Extreme temperatures in permanent work environments should be avoided through implementation of engineering controls and ventilation.	**Compliance Anticipated**
11.28. Monitor weather forecasts for outdoor work to provide advance warning of extreme weather and scheduling work accordingly. Provide temporary shelters to protect against the elements during working activities or for use as rest areas.	**Demonstrates Compliance**
11.29. Adjustment of work and rest periods should be regulated according to temperature stress management procedures provided by ACGIH67, depending on the temperature and workloads.	**Compliance Anticipated**
11.30. Personnel should be provided with protective clothing and access to adequate hydration such as drinking water or electrolyte drinks. Consumption of alcoholic beverages should be avoided.	**Compliance Anticipated**

Ergonomics, Repetitive Motion, Manual Handling	
11.31. Use of mechanical assists to eliminate or reduce exertions required to lift materials, hold tools and work objects, and requiring multi-person lifts if weights exceed thresholds.	**Demonstrates Compliance**
11.32. Selecting and designing tools that reduce force requirements and holding times, and improve postures.	**Demonstrates Compliance**
11.33. Provide user with adjustable work stations.	**Demonstrates Compliance**
11.34. Incorporating rest and stretch breaks into work processes, and conducting job rotation.	**Demonstrates Compliance**
11.35. Implement quality control and maintenance programs that reduce unnecessary forces and exertions.	**Demonstrates Compliance**
11.36. Take into consideration additional special conditions such as left handed persons.	**Demonstrates Compliance**
Working at Heights	
11.37. Provide installation of guardrails with mid-rails and toe boards at the edge of any fall hazard area.	**Demonstrates Compliance**
11.38. Ladders and scaffolds should be properly used by trained employees.	**Demonstrates Compliance**
11.39. Use of fall prevention devices, including safety belt and lanyard travel limiting devices to prevent access to fall hazard area, or fall protection devices such as full body harnesses used in conjunction with shock absorbing lanyards or self-retracting inertial fall arrest devices attached to fixed anchor point or horizontal life-lines.	**Demonstrates Compliance**
11.40. Provide personnel with appropriate training in use, serviceability, and integrity of the necessary PPE.	**Demonstrates Compliance**
11.41. Inclusion of rescue and/or recovery plans, and equipment to respond to workers after an arrested fall.	**Demonstrates Compliance**
Illumination	
11.42. Work area light intensity should be adequate for the general purpose of the location and type of activity, and should be supplemented with dedicated work station illumination, as needed.	**Demonstrates Compliance**
11.43. Emergency lightening should be provided in case of tripping the main light source.	**Demonstrates Compliance**
12. Chemical Hazards	
Air Quality	
12.1. Maintain levels of contaminant dusts, vapors and gases in the work environment at concentrations below those recommended by the ACGIH as TWA-TLV's (threshold limit value)—concentrations to which most workers can be exposed repeatedly (8 hours/day, 40 hrs/week, week-after week), without sustaining adverse health effects.	**Demonstrates Compliance**

12.2. Developing and implementing work practices to minimise release of contaminants into the work environment.	**Demonstrates Compliance**
12.3. Where ambient air contains several materials that have similar effects on the same body organs (additive effects), taking into account combined exposures using calculations recommended by the ACGIH. Where work shifts extend beyond eight (8) hours, calculating adjusted workplace exposure criteria recommended by the ACGIH.	**Demonstrates Compliance**
Fire and Explosions	
12.4. Flammables should be stored away from ignition sources and oxidising materials. Further, flammables storage area should be: • Remote from entry and exit points into buildings; • Away from facility ventilation intakes or vents; • Have natural or passive floor and ceiling level ventilation and explosion venting; • Use spark-proof fixtures; • Be equipped with fire extinguishing devices and self-closing doors.	**Demonstrates Compliance**
12.5. Provide bonding and grounding of, and between, containers and additional mechanical floor level ventilation if materials are being, or could be, dispensed in the storage area.	**Demonstrates Compliance**
12.6. Where the flammable material is mainly comprised of dust, provide electrical grounding, spark detection, and, if needed, quenching systems.	**Demonstrates Compliance**
12.7. Define and label fire hazards areas to warn of special rules (e.g. prohibition in use of smoking materials, cellular phones, or other potential spark generating equipment).	**Demonstrates Compliance**
12.8. Provide specific worker training in handling of flammable materials, and in fire prevention or suppression.	**Demonstrates Compliance**
Corrosive, oxidising, and reactive chemicals	
12.9. Corrosive, oxidising and reactive chemicals should be segregated from flammable materials and from other chemicals of incompatible class (acids vs. bases, oxidisers vs. reducers, water sensitive vs. water based, etc.), stored in ventilated areas and in containers with appropriate secondary containment to minimise intermixing during spills. Workers who are required to handle corrosive, oxidising, or reactive chemicals should be provided with specialised training and provided with, and wear, appropriate PPE (gloves, apron, splash suits, face shield or goggles, etc.).	**Demonstrates Compliance**
Asbestos Containing Materials (ACM)	
12.10. The use of asbestos containing materials (ACM) should be avoided in new buildings or as a new material in remodeling or renovation activities. Existing facilities with ACM should develop an asbestos management plan which clearly identifies the locations where the ACM is present, its condition, procedures for monitoring its condition, procedures to access the locations where ACM is present to avoid damage, and training of staff who can potentially come into contact with the material. The plan should be made available to all persons involved in operations and maintenance activities. Repair or removal and disposal of existing ACM in buildings should only be performed by specially trained personnel following host country requirements, or in their absence, internationally recognised procedures.	**Demonstrates Compliance**

13. Biological Hazards	
Measures to prevent biological hazards	
13.1. If the nature of the activity permits, use of any harmful biological agents should be avoided and replaced with an agent that, under normal conditions of use, is not dangerous or less dangerous to workers. If use of harmful agents cannot be avoided, precautions should be taken to keep the risk of exposure as low as possible and maintained below internationally established and recognised exposure limits.	**Demonstrates Compliance**
13.2. Work processes, engineering, and administrative controls should be designed, maintained, and operated to avoid or minimise release of biological agents into the working environment. The number of employees exposed or likely to become exposed should be kept at a minimum.	**Demonstrates Compliance**
13.3. The employer should review and assess known and suspected presence of biological agents at the place of work and implement appropriate safety measures, monitoring, training, and training verification programs.	**Demonstrates Compliance**
13.4. Measures to eliminate and control hazards from known and suspected biological agents at the place of work should be designed, implemented and maintained in close co-operation with the local health authorities and according to recognised international standards.	**Demonstrates Compliance**
13.5. Work involving agents in Groups 3 and 4 should be restricted only to those persons who have received specific verifiable training in working with and controlling such materials. Areas used for the handling of Groups 3 and 4 biological agents should be designed to enable their full segregation and isolation in emergency circumstances, include independent ventilation systems, and be subject to SOPs requiring routine disinfection and sterilisation of the work surfaces.	**Demonstrates Compliance**
14. Radiological Hazards	
Acceptable effective dose limits for workplace radiological hazards	
14.1. Places of work involving occupational and/or natural exposure to ionising radiation should be established and operated in accordance with recognised international safety standards and guidelines. The acceptable effective dose limits appear: • Five consecutive year average – effective dose– 20 mSv/year for workers (min. 19 years of age); • Single year exposure– effective dose– 50 mSv/year for workers (min. 19 years of age); 6 mSv/year for apprentices and students (16-18 years of age); • Equivalent dose to the lens of the eye –150 mSv/year for workers (min. 19 years of age); 50 mSv/year for apprentices and students (16-18 years of age); • Equivalent dose to the extremities (hands, feet) or the skin – 500 mSv/year for workers (min. 19 years of age); 150 mSv/year for apprentices and students (16-18 years of age).	**Demonstrates Compliance**
14.2. Exposure to non-ionising radiation (including static magnetic fields; sub-radio frequency magnetic fields; static electric fields; radio frequency and microwave radiation; light and near-infrared radiation; and ultraviolet radiation) should be controlled to internationally recommended limits.	**Demonstrates Compliance**

14.3. In the case of both ionising and non- ionising radiation, the preferred method for controlling exposure is shielding and limiting the radiation source. Personal protective equipment is supplemental only or for emergency use. Personal protective equipment for near-infrared, visible and ultraviolet range radiation can include appropriate sun block creams, with or without appropriate screening clothing.	**Demonstrates Compliance**
15. Personal Protective Equipment (PPE)	
Providing Personal Protective Equipment (PPE) for workers additional protection	
15.1. Worker, co-workers, and occasional visitors should be provided with appropriate PPE that offers adequate protection.	**Demonstrates Compliance**
15.2. Proper maintenance of PPE should include cleaning when dirty and replacement when damaged or worn out. Proper use of PPE should be part of the recurrent training programs for employees.	**Demonstrates Compliance**
15.3. Selection of PPE should be based on the hazard and risk ranking and selected according to criteria on performance and testing established.	**Demonstrates Compliance**
16. Special Hazard Environments	
Confined Space	
16.1. Engineering measures should be implemented to eliminate, to the degree feasible, the existence and adverse character of confined spaces.	**Demonstrates Compliance**
16.2. Permit-required confined spaces should be provided with permanent safety measures for venting, monitoring, and rescue operations, to the extent possible. The area adjoining an access to a confined space should provide ample room for emergency and rescue operations. 16.3. Access hatches should accommodate 90% of the worker population with adjustments for tools and protective clothing.	**Demonstrates Compliance**
16.4. Prior to entry into a permit-required confined space: • Process or feed lines into the space should be disconnected or drained, and blanked and locked-out; • Mechanical equipment in the space should be disconnected, de-energised, locked-out, and braced, as appropriate; • The atmosphere within the confined space should be tested to assure the oxygen content is between 19.5 percent and 23 percent, and that the presence of any flammable gas or vapour does not exceed 25 percent of its respective Lower Explosive Limit (LEL); • If the atmospheric conditions are not met, the confined space should be ventilated until the target safe atmosphere is achieved, or entry is only to be undertaken with appropriate and additional PPE.	**Demonstrates Compliance**
16.5. Safety precautions should include Self Contained Breathing Apparatus (SCBA), life lines, and safety watch workers stationed outside the confined space, with rescue and first aid equipment readily available.	**Demonstrates Compliance**
16.6. Before workers are required to enter a permit-required confined space, adequate and appropriate training in confined space hazard control, atmospheric testing, use of the necessary PPE, as well as the serviceability and integrity of the PPE should be verified. Further, adequate and appropriate rescue and / or recovery plans and equipment should be in place before the worker enters the confined space.	**Demonstrates Compliance**

Lone and Isolated Workers	
16.7. Where workers may be required to perform work under lone or isolated circumstances, Standard Operating Procedures (SOPs) should be developed and implemented to ensure all PPE and safety measures are in place before the worker starts work. SOPs should establish, at a minimum, verbal contact with the worker at least once every hour, and ensure the worker has a capability for summoning emergency aid.	**Demonstrates Compliance**
16.8. If the worker is potentially exposed to highly toxic or corrosive chemicals, emergency eye-wash and shower facilities should be equipped with audible and visible alarms to summon aid whenever the eye- wash or shower is activated by the worker and without intervention by the worker.	**Demonstrates Compliance**
17. Monitoring	
Occupational health and safety monitoring program	
17.1. The occupational health and safety monitoring program should be developed. It should include the following: • regular inspection and testing of all safety features and hazard control measures; • surveillance of the working environment: Employers should document compliance using an appropriate combination of portable and stationary sampling and monitoring instruments; • surveillance of workers health; • training activities for employees and visitors should be adequately monitored and documented.	**Demonstrates Compliance**
Accidents and Diseases monitoring	
17.2. The employer should establish procedures and systems for reporting and recording: • Occupational accidents and diseases; • Dangerous occurrences and incidents. These systems should enable workers to report immediately to their immediate supervisor any situation they believe presents a serious danger to life or health. The systems and the employer should further enable and encourage workers to report to management all: • Occupational injuries and near misses; • Suspected cases of occupational disease; • Dangerous occurrences and incidents.	**Demonstrates Compliance**
17.3. All reported occupational accidents, occupational diseases, dangerous occurrences, and incidents together with near misses should be investigated with the assistance of a person knowledgeable/competent in occupational safety.	**Demonstrates Compliance**
Community Health and Safety	
18. Water Quality and Availability	

18.1. Project activities involving wastewater discharges, water extraction, diversion or impoundment should prevent adverse impacts to the quality and availability of groundwater and surface water resources.	**Demonstrates Compliance**
18.2. Drinking water sources, whether public or private, should at all times be protected so that they meet or exceed applicable national acceptability standards or in their absence the current edition of WHO Guidelines for Drinking-Water Quality.	**Demonstrates Compliance**
18.3. The potential effect of groundwater or surface water abstraction for project activities should be properly assessed through a combination of field testing and modeling techniques, accounting for seasonal variability and projected changes in demand in the project area.	**Demonstrates Compliance**
18.4. Project activities should not compromise the availability of water for personal hygiene needs and should take account of potential future increases in demand.	**Demonstrates Compliance**
19. Structural Safety of Project Infrastructure	
19.1. The following issues should be considered and incorporated as appropriate into the planning, siting, and design phases of a project: • Inclusion of buffer strips or other methods of physical separation around project sites to protect the public from major hazards associated with hazardous materials incidents or process failure, as well as nuisance issues related to noise, odours, or other emissions; • Incorporation of siting and safety engineering criteria to prevent failures due to natural risks posed by earthquakes, tsunamis, wind, flooding, landslides and fire. To this end, all project structures should be designed in accordance with engineering and design criteria mandated by site-specific risks, including but not limited to seismic activity, slope stability, wind loading, and other dynamic loads.	**Demonstrates Compliance**
20. Life and Fire Safety	
20.1. All new buildings should be designed, constructed, and operated in full compliance with local building codes, local fire department regulations, local legal/insurance requirements.	**Demonstrates Compliance**
21. Traffic Safety	
21.1. Traffic safety should be promoted by all project personnel during displacement to and from the workplace, and during operation of project equipment on private or public roads.	**Demonstrates Compliance**
21.2. Road safety initiatives proportional to the scope and nature of project activities should include: • Adoption of best transport safety practices across all aspects of project operations with the goal of preventing traffic accidents and minimising injuries suffered by project personnel and the public; • Regular maintenance of vehicles and use of manufacturer approved parts to minimise potentially serious accidents caused by equipment malfunction or premature failure. Where the project may contribute to a significant increase in traffic along existing roads, or where road transport is a significant component of a project, recommended measures include: • Minimising pedestrian interaction with construction vehicles;	**Demonstrates Compliance**

• Collaboration with local communities and responsible authorities to improve signage, visibility and overall safety of roads; • Coordination with emergency responders to ensure that appropriate first aid is provided in the event of accidents; • Using locally sourced materials, whenever possible, to minimise transport distances; • Employing safe traffic control measures.	
22. Transport of Hazardous Materials	
22.1. The procedures for transportation of hazardous materials (Hazmats) should include: • Proper labelling of containers, including the identify and quantity of the contents, hazards, and shipper contact information; • Ensuring that the volume, nature, integrity and protection of packaging and containers used for transport are appropriate for the type and quantity of hazardous material and modes of transport involved; • Ensuring adequate transport vehicle specifications; • Training employees involved in the transportation of hazardous materials regarding proper shipping procedures and emergency procedures; • Providing the necessary means for emergency response on call 24 hours/day.	**Demonstrates Compliance**
22.2. Guidance related to major transportation hazards should be implemented in addition to measures presented in the preceding section for preventing or minimising the consequences of catastrophic releases of hazardous materials, which may result in toxic, fire, explosion, or other hazards during transportation. Projects which transport hazardous materials at or above the threshold quantities should prepare a Hazardous Materials Transportation Plan.	**Demonstrates Compliance**
22.3. Procedures and practices for the handling of hazardous materials and Emergency Preparedness and Response Plan should be developed for quick and efficient responses to accidents that may result in injury or environmental damage.	**Demonstrates Compliance**
23. Disease Prevention	
Communicable Diseases	
23.1. Recommended interventions at the project level include: • Providing surveillance and active screening and treatment of workers; • Undertaking health awareness and education initiatives, for example, by implementing an information strategy to reinforce person-to-person counselling addressing systemic factors that can influence individual behaviour as well as promoting individual protection, and protecting others from infection, by encouraging condom use; • Training health workers in disease treatment; • Conducting immunisation programs for workers in local communities to improve health and guard against infection; • Providing treatment through standard case management in on-site or community health care facilities; • Promoting collaboration with local authorities to enhance access of workers families and the community to public health services and promote immunisation.	**Demonstrates Compliance**

Vector-Borne Diseases	
23.2. Client in close collaboration with community health authorities, can implement an integrated control strategy for mosquito and other arthropod-borne diseases that might involve: • Prevention of larval and adult propagation through sanitary improvements and elimination of breeding habitats close to human settlements; • Elimination of unusable impounded water; • Increase in water velocity in natural and artificial channels; • Considering the application of residual insecticide to dormitory walls; • Promoting use of repellents, clothing, netting, and other barriers to prevent insect bites, and other measures.	**Demonstrates Compliance**
24. Emergency Preparedness and Response	
Communication Systems	
24.1. Alarm bells, visual alarms, or other forms of communication should be used to reliably alert workers to an emergency.	**Demonstrates Compliance**
24.2. Testing warning systems at least annually (fire alarms monthly), and more frequently if required by local regulations, equipment, or other considerations.	**Demonstrates Compliance**
24.3. Installing a back-up system for communications on-site with off-site resources, in the event that normal communication methods may be inoperable during an emergency.	**Demonstrates Compliance**
24.4. If a local community may be at risk from a potential emergency arising at the facility, the company should implement communication measures to alert the community.	**Demonstrates Compliance**
24.5. Emergency information should be communicated to the media through: • A trained, local spokesperson able to interact with relevant stakeholders, and offer guidance to the company for speaking to the media, government, and other agencies; • Written press releases with accurate information, appropriate level of detail for the emergency, and for which accuracy can be guaranteed.	**Demonstrates Compliance**
Emergency Resources	
24.6. A mechanism should be provided for funding emergency activities.	**Demonstrates Compliance**
24.7. The company should consider the level of local fire fighting capacity and whether equipment is available for use at the facility in the event of a major emergency or natural disaster. If insufficient capacity is available, firefighting capacity should be acquired that may include pumps, water supplies, trucks, and training for personnel.	**Demonstrates Compliance**
24.8. The company should provide first aid attendants for the facility as well as medical equipment suitable for the personnel, type of operation, and the degree of treatment likely to be required prior to transportation to hospital.	**Demonstrates Compliance**

24.9. Appropriate measures for managing the availability of resources in case of an emergency should include: • Maintaining a list of external equipment, personnel, facilities, funding, expert knowledge, and materials that may be required to respond to emergencies; • Providing personnel who can readily call up resources, as required; • Tracking and managing the costs associated with emergency resources; • Considering the quantity, response time, capability, limitations, and cost of these resources, for both site-specific emergencies, and community or regional emergencies; • Considering if external resources are unable to provide sufficient capacity during a regional emergency and whether additional resources may need to be maintained on-site.	**Demonstrates Compliance**
24.10. Where appropriate, mutual aid agreements should be maintained with other organisations to allow for sharing of personnel and specialised equipment.	**Demonstrates Compliance**
24.11. The company should develop a list of contact information for all internal and external resources and personnel. The list should be maintained annually.	**Demonstrates Compliance**
25. Training and Updating	
25.1. Training programs and practice exercises should be provided for testing systems to ensure an adequate level of emergency preparedness.	**Demonstrates Compliance**
25.2. Training should be conducted annually and perhaps more frequently, when the response includes specialised equipment, procedures, or hazards, or when otherwise mandated.	**Demonstrates Compliance**
25.3. Provide training exercises to allow personnel the opportunity to test emergency preparedness.	**Demonstrates Compliance**
26. Business Continuity and Contingency	
26.1. Measures to address business continuity and contingency should include the following: • Identifying replacement supplies or facilities to allow business continuity following an emergency; • Using redundant or duplicate supply systems as part of facility operations to increase the likelihood of business continuity; Maintaining back-ups of critical information in a secure location to expedite the return to normal operations following an emergency.	**Demonstrates Compliance**

APPENDIX D:

COMPLIANCE AGAINST EQUATOR PRINCIPLES

Appendix D: Compliance against the Equator Principles

Audit Criterion		Detail	Site Findings	Compliance Category
EP1	Principle 1: Review & Categorisation	When a project is proposed for financing, the EPFI will, as part of its internal social and environmental review and due diligence, categorise such project based on the magnitude of its potential impacts and risks in accordance with the environmental and social screening criteria of the International Finance Corporation (IFC).	Category A project	Demonstrates Compliance
EP2	Principle 2: Social & Environmental Assessment	An assessment has been prepared by borrower, consultant or external expert, and includes mitigation and management measures.	The environmental and social impacts have been assessed through a systematic process applied for all Project components as identified through the ESIA scoping and through engagement with key Government stakeholders in Turkey. The ESIAs have been developed to meet national standards, TANAP policy and guidance provided by international institutions such as the IFC, EBRD and EU. The ESIA was publicly disclosed on the TANAP website (22 June 2015). Turkey's Ministry of Environment and Urbanisation (MoEU) approved the ESIA in June 2014. Key documentation: • ESIA • Environmental and Social Management Plans; • Contractor Management Plans; • Construction Phase HSE Management Plans;	Demonstrates Compliance

Audit Criterion		Detail	Site Findings	Compliance Category
			Full list of Project documentation reviewed through Audit available in appendices.	
EP3	Principle 3: Applicable Social & Environmental Standards	Non-OECD countries and OECD not High-Income: The project complies with, or established a justified deviation from, applicable IFC Performance Standards and EHS Guidelines (refer to Appendix B below) The Assessment process in both cases should address compliance with relevant host country laws, regulations and permits that pertain to social and environmental matters.	The following Host Government Agreements and Inter-Government Agreements have been signed by TANAP in order to meet legal compliance with Turkish requirements and set the basis for the Projects implementation. "Memorandum of Understanding between the Government of the Republic of Turkey and the Government of the Republic of Azerbaijan Concerning the Development of a Standalone Pipeline for the Transportation of The Natural Gas Originating and Transiting from the Republic of Azerbaijan across the Territory of the Republic of Turkey", was signed on 24 December 2011 in Ankara, which was approved by Law no 6342 dated 29 June 2012 and was published in the Official Gazette on 12 July 2012. Following approval by Council of Ministers, the Agreement was published in the Official Gazette on 11 October 2012 and entered into force. Within the framework of this Memorandum of Understanding, Trans Anatolian Gas Pipeline Company B.V was established." "The Host Agreement Between the Government of the Republic of Turkey and the Government of the Republic of Azerbaijan Concerning the Trans-Anatolian Natural Gas Pipeline System", and its attachment, "The Host Government Agreement (HGA) between the Government of the Republic of Turkey and The Trans Anatolian Gas Pipeline Company B.V. Concerning Trans-Anatolian Natural Gas Pipeline System", were signed on 26 June 2012 in Istanbul. These Agreements were approved by Law no 6375 dated 02 January 2013, which	Demonstrates Compliance

Audit Criterion		Detail	Site Findings	Compliance Category
			was published in the Official Gazette on 17 January 2013. Following approval by Council of Ministers, the Agreements were published in the Official Gazette on 19 March 2013 and entered into force." The Host Government Agreement requires Project Environmental and Social Standards complying with National Laws and also taking due account of international standards and practices generally prevailing in the Natural Gas pipeline industry, including relevant Performance Standards of the International Finance Corporation.	
EP4	Principle 4: Action Plan & Management System	EPFIs require the development and maintenance of an Action Plan (AP) to address findings, prioritise mitigation measures, and take corrective actions and monitoring measures. An Environmental and Social Management Systems (ESMS) has been established.	TANAP has developed and implemented a detailed Environmental and Social Management System (ESMS) with which to manage the Project's environmental and social aspects. TANAP has documented the ESMS in line with ISO 14001 requirements. The ESMS was observed to be appropriate to the size and scale of the Project, documenting E&S policy, management plans, procedures and guidance. The TANAP ESMS was communicated to the Project subcontractors to ensure that their respective ESMS' reflected the requirements of the TANAP ESMS. ESMPs within the ESMS appear to favour impact and risk avoidance, include measurable targets and indicators and assign roles and responsibilities for timebound implementation.	Demonstrates Compliance
EP5	Principle 5: Consultation & Disclosure	EPFI will require the client to demonstrate effective Stakeholder Engagement as an ongoing process in a structured and culturally appropriate manner with Affected Communities and, where relevant, Other Stakeholders. For Projects	Policies and standards are in place for the Project regarding Stakeholder engagement, communications and social impact management and requirements. The SEP (Aug 2013) was prepared to meet international standards and was finalised reflecting public participation	Demonstrates Compliance

Audit Criterion		Detail	Site Findings	Compliance Category
		with potentially significant adverse impacts on Affected Communities, the client will conduct an Informed Consultation and Participation process.	and disclosure requirements. The SEP is aligned with an online Stakeholder Information System for tracking ongoing engagement and issues of stakeholder interest. Engagement activities during ESIA development and disclosure in line with GIP (including village-level meetings, gender-segregated meetings/focus groups) and included stakeholder analysis of engaged organisations (e.g. ERM-REP-ENV-GEN-003 Rev.P2-0, 17 January 2014). Engagement was appropriate to the nature and the scale of the Project, at the pre-construction phase covering: • 7 provinces and 56 District PPMs with the participation of local governors, local NGOs, media and community representatives; • 513 Village Questionnaires and 2,253 Household Questionnaires; • 307 Focus Group Meetings with youth, women and fishermen; • 151 in-depth interviews with Local Authorities, Sub-governors & Mayors; • 83 Disclosure village meetings held; and • 572 villages invited the village disclosure meetings. Ongoing stakeholder engagement is undertaken by CCs with support of TANAP social specialists.	
		In order to accomplish this, the appropriate assessment documentation, or non-technical summaries thereof, will be made available to the public by the borrower for a	TANAP have developed a Public Consultation and Disclosure Plan that presents and describes the stakeholder disclosure and consultation procedures as part of the	Demonstrates Compliance

Audit Criterion		Detail	Site Findings	Compliance Category
		reasonable minimum period in the relevant local language and in a culturally appropriate manner. The borrower will take account of and document the process and results of the consultation, including any actions agreed resulting from the consultation.	ESIA process. In sum, the plans appear substantive. Concerning disclosure, the ESIA documentation was disseminated for public review and comment for a period of 60 days, including public meetings. The Community Liaison Plan and the Public Consultation and Disclosure Plan both adequately define procedures for external communications and the lodging and resolution of grievances. Periodic reporting is adequately documented in the ESIA (i.e. of the ESIA itself), including evidence of reporting notifications and materials. In addition, there is a commitment to periodic reporting to affected communities as the Project develops in both the Community Liaison Plan and the Public Consultation and Disclosure Plan.	
		For projects with adverse social or environmental impacts, disclosure should occur early in the Assessment process and in any event before the project construction commences, and on an ongoing basis.	The ESIA included a scoping process which allowed for the identification of Valued Environmental and Social Components (VECs) that were defined as the distinct components of the physical, biological and social environment in the Project Area of Influence (AOI) that are subject to National or International policies, conventions, agreements, legislative or administrative acts aimed at their protection / enhancement. Concerning disclosure, the ESIA documentation was disseminated for public review and comment for a period of 60 days, including public meetings. Results of the consultation process were incorporated into the final ESIA process.	Demonstrates Compliance

Audit Criterion		Detail	Site Findings	Compliance Category
EP6	Principle 6: Grievance Mechanism	The borrower will inform the affected communities about the mechanism in the course of its community engagement process and ensure that the mechanism addresses concerns promptly and transparently, in a culturally appropriate manner, and is readily accessible to all segments of the affected communities.	The grievance mechanism in place for the land acquisition process is the same integrated system as per the Stakeholder Engagement Plan (the Online Stakeholder Information Database, OSID). Complaints and requests can be lodged online, by phone, in person or with CROsCLOs/TANAP Social Specialists and via Muhtars. Complaints can be lodged anonymously or complainants can identify themselves. All PAPs are provided with general information about the Project and specific information regarding the LA activities, through meetings and engagement activities, as well as receiving disclosure information such as the GLAC. The GLAC also describes the grievance process, including ways in which grievances can be raised and the process and timelines for resolution. A quarter of all complaints across all Lots received to date relate to damage to land (see also PR10). Appeals Committees have been established for each Lot in January 2017 with notification at the community level from February 2017. These will provide for third party consideration of grievances that cannot be agreed between TANAP and the complainant. Appeals Committees were established in January 2017 for each Lot and are being announced via posters at settlement level in addition to public disclosure on the TANAP website and supported by documentation including the SEP, Grievance Procedure and an Appeals Committee Application Form. Currently, 4 complaints have been escalated to Appeals Committees. The SEP was updated to reflect their formation, and disclosed via new brochure being prepared to announce	Demonstrates Compliance

Audit Criterion		Detail	Site Findings	Compliance Category
			RAP Fund and Appeals Committee as a part of TANAP's Grievance Mechanism as of April 2017. Further, incorporating additional grievance categories into OSID will now to allow for deeper analysis and better responsiveness to issues raised by PAPs. CCs have a maintenance period of 2 years, which will include the period for testing success of reinstatement of land. This is to be completed to the satisfaction of TANAP, and losses of income due to the failure of reinstatement are anticipated in the payments to landowners. Landowners are additionally able to raise a grievance following the Land Exit process. For example, if grievances relate to satisfaction of reinstatement and this falls during the maintenance period, this will fall under the jurisdiction of the CC to rectify, otherwise this will be responded to as per the grievance mechanism. According to TANAP, post-maintenance period land reinstatement rectification for the 2 years after reinstatement is the responsibility of the associated construction contractors as per their contracts. Depreciation of land value is factored in to the valuation of land parcels during the negotiation process (payments are between 70-90% of easement value, depending on the type of land, and productivity losses are calculated as 30% for year 1, 20% loss for year 2 and 10% loss for year three, added to the land value.) It can be anticipated that there may be issues regarding reinstatement success due to soil storage practices (see PR 6) hence the need to ensure the guidance provides clarity that this reinstatement will be provided for and	

Audit Criterion		Detail	Site Findings	Compliance Category
			grievances redress actions taken, whether financed through the RAP Fund or elsewhere, and an assessment that the productivity loss factors are accurate and sufficient to cover real losses experienced in practice. See also Section 5.5.6 and 5.5.7. It is noted that Reinstatement has been included as a new category in OSID to enable tracking of this issue.	
EP7	Principle 7: Independent Review	For all Category A projects and, as appropriate, for Category B projects, an independent social or environmental expert not directly associated with the borrower will review the Assessment, AP and consultation process documentation in order to assist EPFI's due diligence, and assess Equator Principles compliance.	Underway	Demonstrates Compliance
EP8	Principle 8: Covenants	An important strength of the Principles is the incorporation of covenants linked to compliance. For Category A and B projects, the borrower will covenant in financing documentation.	To be determined	
EP9	Principle 9: Independent Monitoring & Reporting	To ensure ongoing monitoring and reporting over the life of the loan, EPFIs will, for all Category A projects, and as appropriate, for Category B projects, require appointment of an independent environmental and/or social expert, or require that the borrower retain qualified and experienced external experts to verify its monitoring information	To be determined	

Audit Criterion		Detail	Site Findings	Compliance Category
		which would be shared with EPFIs.		