

ENVIRONMENTAL MANAGEMENT PLAN

Version 5.0, February 21, 2018

Environmental and Social Management Framework specifies environmental and social procedures for implemented projects to adhere to, including Environmental Management Plan, which are consistent with WB Safeguard policies and Serbian national legislation.

Project IF ID: 1038

I. MITIGATION PLAN

Phase	Issue	Mitigating Measure	Cost of Mitigation (If Substantial)	Responsibility*	Supervision observation and comments (to be filled out during supervision)
Construction	1. Impact of high-voltage electrical installations 2. Impact of open flame or ignition source including the power sources	1. Tanks with stored gas are not located below or near high-voltage electrical installations 2. Measures and procedures prescribed by the standard No. IGC Doc 15/06/E have been	1. No substantial costs 2. No substantial costs	1. Elit Inox 2. Elit Inox	

		<p>applied incl. that distance between the gas storage tanks and any possible open flame or ignition source including the power sources is at least five meters</p>			
	3. Impact of a piping of flammable gas or liquid	<p>3. Measures and procedures prescribed by the standard No. BCGA CP 33 (Rev. 1/2012) have been applied incl. distance between the gas storage tanks and any piping of flammable gas or liquid is at least five meters</p>	3. No substantial costs	3. Elit Inox	
	4. Exposure of humans to stored gas	<p>4. Measures and procedures prescribed by the</p>	4. No substantial costs	4. Elit Inox	

	5. Leakage of stored gas into the land, sewage and plumbing	<p>standard No. BCGA CP 33 (Rev. 1/2012) have been applied incl.</p> <p>distance between the gas storage tanks and any rooms for people stay (offices, canteens, ...) is at least eight [8] meters</p> <p>5. Measures and procedures prescribed by the standard No. BCGA CP 33 (Rev. 1/2012) have been applied incl.</p> <p>distance between the gas storage tanks and any pits, manholes drains for drainage of surface waters and any openings of the system below ground level is at least five [5] meters. Also, the existing manhole on</p>	5. No substantial costs	5. Elit Inox	
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	<p>6. Impact of stored gas on adjacent plots</p> <p>7. Parking places for vehicles [other than those assigned and corresponding specially equipped</p>	<p>the site that was planned for placing the reservoir with gas has been removed</p> <p>6. Measures and procedures prescribed by the standard No. BCGA CP 33 (Rev. 1/2012) have been applied incl. distance between the gas storage tanks and any adjacent plots is at least eight [8] meters.</p> <p>7. Measures and procedures prescribed by the standard No. BCGA CP 33 (Rev. 1/2012) have been applied incl. distance between the gas storage tanks and parking places for</p>	<p>6. No substantial costs</p> <p>7. No substantial costs</p>	<p>6. Elit Inox</p> <p>7. Elit Inox</p>	
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	<p>8. Potential collision of stored hydrogen with stored cryogenic liquid gases [argon, nitrogen]</p>	<p>vehicles [other than those assigned and corresponding specially equipped] is at least eight [8] meters.</p> <p>8. Measures and procedures prescribed by the standard IGC Doc 15/06/E have been applied incl. distance between the hydrogen storage tanks and storage tanks of cryogenic liquid gases is at least five [5] meters, or hydrogen tanks are insulated with a fireproof wall with a fire resistance of 90 min</p>	<p>8. No substantial costs</p>	<p>8. Elit Inox</p>	
	<p>9. Potential collision of gas storage tanks with the storage of other inflammable materials</p>	<p>9. Measures and procedures prescribed by the</p>	<p>9. No substantial costs</p>	<p>9. Elit Inox</p>	

	<p>[eg wood, paints and varnishes, etc.]</p> <p>10. Ecological characteristics and quality of materials and components used for the development and production of 'Nitrogen chamber'</p> <p>11. The process of translating liquid nitrogen into the gaseous phase can have a certain impact on the</p>	<p>standard IGC Doc 15/06/E have been applied incl.</p> <p>distance between gas storage tanks and storage of other inflammable materials is at least eight [8] meters</p> <p>10. Obtain detailed specifications on the composition, properties and quality of materials and components. Obtain certificates and declarations on material quality. Use proven suppliers and brand-name materials and components.</p> <p>11. The project of the new solution should anticipate that the gas phase of nitrogen be additionally used</p>	<p>11. No substantial costs</p>	<p>11. Elit Inox</p>	
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	<p>environment inside and outside of the factory</p> <p>12. The potential presence of nitrogen in the work space outside the installations</p>	<p>as a protective atmosphere in the further production of pipes.</p> <p>12. Bearing in mind the properties of nitrogen, implement appropriately the removal of nitrogen out of the working space (drive) into the external environment.</p>	<p>12. No substantial costs</p>	<p>12. Elit Inox</p>	
Operation	<p>1. Unauthorized access by humans</p> <p>2. Unauthorized access by vehicles</p>	<p>1. Access of employees and visitors [other than those trained and authorized] in an area of at least 8 meters around of the stored gas is forbidden.</p> <p>2. Access of vehicles [other than those assigned and corresponding specially equipped] in</p>	<p>1. No substantial costs</p> <p>2. No substantial costs</p>	<p>1. Elit Inox</p> <p>2. Elit Inox</p>	

	<p>3. The use of well water for additional cooling can affect the increase the temperature of the water in the recirculating well.</p> <p>4. Inadequate waste management can lead to pollution of the environment inside and outside the factory</p> <p>5. The use of chemical degreasing substances</p>	<p>an area of at least 8 meters around of the stored gas is forbidden</p> <p>3. With the additional use of liquid nitrogen in the cooling system, the amount of water needed for additional cooling can be reduced.</p> <p>4. Complete waste from this project will be deferred and stored in a legally prescribed manner and within the shortest period of time it will hand over to an authorized firm for that activity in accordance with already established procedures.</p> <p>5. Avoid using hazardous chemical</p>	<p>3. No substantial costs</p> <p>4. No substantial costs</p> <p>5. No substantial costs</p>	<p>3. Elit Inox</p> <p>4. Elit Inox</p> <p>5. Elit Inox</p>	
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	<p>during research and development, i.e. during the project can affect the environment.</p>	<p>compounds and replace them with less-obsessed compounds, using biodegradable detergents, simultaneously ensuring that it does not come into contact with the environment incl. ensuring the proper storage of degreasing substances in areas resistant to spillage</p>			
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*Items indicated to be the responsibility of the contractor shall be specified in the bid documents

II. MONITORING PLAN

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	When is the parameter to be monitored- frequency of measurement or continuous?	Monitoring Cost What is the cost of equipment or contractor charges to perform monitoring?	Responsibility	Supervision observation and comments (to be filled out during supervision with reference to adequate measuring reports)
Construction	1. Presence and/or appearance of high-voltage electrical installations	1. In an area of 8 meters around the tanks with stored gas	1. Insight of site and into any further project documentation for constructions and/or reconstructions	1. Continuously in sense of planning the further constructions and/or reconstructions	1. No specific costs for this item	1. Elit Inox	
	2. Presence and/or appearance of piping of flammable gas or liquid	2. In an area of 5 meters around the tanks with stored gas	2. Insight of site and into any further project documentation for constructions and/or reconstructions	2. Continuously in sense of planning the further constructions and/or reconstructions	2. No specific costs for this item	2. Elit Inox	

	3. Presence and/or appearance of pits, manholes drains for drainage of surface waters and any openings of the system below ground level	3. In an area of 5 meters around the tanks with stored gas	3. Insight of site and into any further project documentation for constructions and/or reconstructions	3. Continuously in sense of planning the further constructions and/or reconstructions	3. No specific costs for this item	3. Elit Inox	
Operation	1. Presence of open flame or ignition source including the power sources	1. In an area of 5 meters around the tanks with stored gas	1. CCTV combined with fire and smoke detectors and sensors integrated with real-time monitoring central system as well as with sound/visua	1. Continuously		1. Elit Inox	

			l alarm and automated early-warning email/SMS notification system				
	2. Leakage of stored gas into the land, sewage and plumbing	2. Directly on valves, openers, couplings of gas installations and tanks, and on the ground directly below and next to the tanks	2. Gas detectors and sensors integrated with real-time monitoring central system as well as with sound/visual alarm and automated early-warning email/SMS notification system	2. Continuously		2. Elit Inox	
	3. Impact of stored gas on	3. On a reference	3. Gas detectors	3. Continuously		3. Elit Inox	

	<p>adjacent plots</p> <p>4. Potential collision of stored hydrogen with stored cryogenic liquid gases [argon, nitrogen]</p>	<p>points of the borders with adjacent plots</p> <p>4. Directly on valves, openers, couplings of gas installations and tanks, and in the air and on the ground directly below and next to the tanks</p>	<p>and sensors integrated with real-time monitoring central system as well as with automated early-warning email/SMS notification system</p> <p>4. Gas detectors and sensors integrated with real-time monitoring central system as well as with automated early-warning email/SMS notification system</p>	<p>4. Continuously</p>	<p>4. Elit Inox</p>		
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	<p>5. Unauthorized access by humans</p>	<p>5. In an area of 8 meters around the tanks with stored gas</p>	<p>5. CCTV combined with motion detectors and sensors integrated with real-time monitoring central system as well as with sound/visual alarm and automated early-warning email/SMS notification system</p>	<p>5. Continuously</p>		<p>5. Elit Inox</p>	
	<p>6. Unauthorized access by vehicles</p>	<p>6. In an area of 8 meters around the tanks with stored gas</p>	<p>6. CCTV combined with motion detectors and sensors integrated with real-time</p>	<p>6. Continuously</p>		<p>6. Elit Inox</p>	

	<p>7. Temperature of the water in the recirculating well</p>	<p>7. Inside of the well as well as on reference points in plumbing installation</p>	<p>7. monitoring central system as well as with sound/visual alarm and automated early-warning email/SMS notification system</p> <p>7. Temperature, Ph and water level sensors integrated with real-time monitoring central system as well as with automated early-warning email/SMS notification</p>	<p>7. Continuously</p>	<p>7. Elit Inox</p>		
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	<p>8. Impact of translating liquid nitrogen into the gaseous phase on the environment inside and outside of the factory</p>	<p>8. On reference points inside of the factory</p>	<p>system</p> <p>8. Air quality sensors integrated with real-time monitoring central system as well as with automated early-warning email/SMS notification system</p>	<p>8. Continuously</p>		<p>8. Elit Inox</p>	
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Public Consultation Details and Minutes of Meeting for the Environmental Management Plan

Provide details on:

- Manner in which notification of the consultation was announced: media(s) used, date(s), description or copy of the announcement
- Date(s) consultation(s) was (were) held
- Location(s) consultation(s) was (were) held
- Who was specifically invited (Name, Organization or Occupation, Telephone/Fax/e-mail number/address (home and/or office))

- List of Attendees (Name, organization or occupation, contact details)
- Meeting Agenda
- Summary Meeting Minutes (Comments, Questions and Response by Presenters)
- List of decisions reached, and any actions agreed upon with schedules and deadlines and responsibilities.