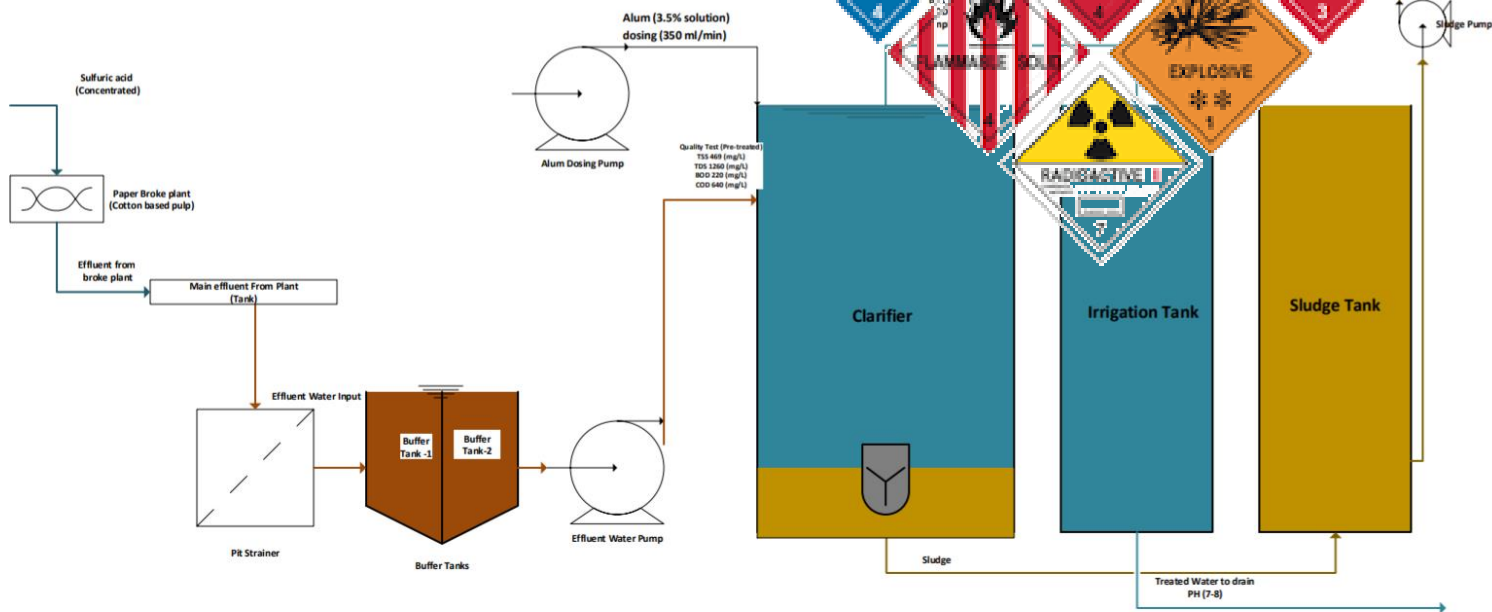




Security Papers
LIMITED



HAZARDOUS SUBSTANCES MANAGEMENT PLAN (HSMP)

Jinnah Avenue, Malir Halt,
Karachi-75100, Pakistan

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**Security Papers Limited
(Factory)**

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Karachi-75100, Pakistan

Final Report

July 2021



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Date:
July 2021

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1.	Introduction	4
1.1	Brief Profile of Security Papers Limited (SPL)	4
1.1.1	Vision	4
1.1.2	Mission	5
1.2	Production Facilities	5
1.3	Operational Control, SOP (Health, Safety & Environment)	5
1.4	Management Systems Certifications	6
1.5	Environmental Policy	6
1.6	Display of Safety and Environmental Warning signs Chemical Storage Areas.	6
1.7	Processes, Systems, & Procedures for Legal Compliance	7
1.8	Designated smoking area	8
1.9	Emergency Plan and Procedure for preparedness and response	8
1.10	Reward & Recognition Program & Continual improvement initiatives	8
1.11	Trainings & Awareness Sessions	9
1.12	Environment Awareness Activities	10
1.13	Green Environment	11
1.14	NOC Obtained from SEPA	12
1.15	Environmental Monitoring	12
1.16	Management of Raw Material Processing	12
1.17	Liquid Effluent Management	12
1.18	Solid Waste Management	13
1.16	Effluent Treatment Plant	13
1.17	Personal Protective Equipment (PPEs)	14
1.18	Clean environmental excerption	14
1.19	Production mechanism for cleaner Air, Water, Noise etc.	14
1.20	Environmental Impact Assessment (EIA)	15
1.21	Energy Conservation Measures	15
1.22	Awards & Recognition	15
2.	Statutory Requirements	16
2.1	Administrative Framework	16
2.2	Statutory Framework	17
2.3	Constitutional Provision	19

2.4	Sindh Environmental Protection Act, 2014	19
2.5	Sindh EPA (Review of IEE and EIA) Regulations, 2014	21
2.6	Guidelines for Public Consultation	21
2.7	Sindh Environmental Quality Standards (SEQS)	23
2.8	Hazardous Substances Rules 2014	26
3.	Hazardous Substances Management Plan (HSMP)	28
3.1	Sulphuric Acid (Conc. 95% & Qty. 45,000 kgs per anum)	28
3.1.1	Use in Operations	28
3.1.1.1	Broke Plant	28
3.1.1.2	Quality Management	29
3.1.1.3	In process Inspection	29
3.1.1.4	Safety of workers	29
3.1.1.5	Environment preservation	29
3.1.1.6	Evaluation of compliance obligation	29
3.1.1.7	Storage and preservations	29
3.1.1.8	Security Control	30
3.1.1.9	Waste Effluent Control	30
3.1.1.10	Sludge Lagoons	30
3.2	Hydrochloric Acid (Conc. 32% & Qty. 35,000 kgs per annum)	30
3.2.1	Use in Operations	30
3.2.1.1	Internal Sizing agent	30
3.2.1.2	Quality Management	30
3.2.1.3	In process Inspection	31
3.2.1.4	Safety of workers	31
3.2.1.5	Environment preservation	31
3.2.1.6	Evaluation of compliance obligation	32
3.2.1.7	Storage and preservations	32
3.2.1.8	Security Control	32
3.2.1.9	Waste Effluent Control	32
3.2.1.10	Sludge Lagoons	32
3.3	Sodium Hydroxide (Conc. 47% & Qty. 170,000 kgs per anum)	33
3.3.1	Use in Operations:	33

3.3.1.1	Cooking (digesting) Process	33
3.3.1.2	Quality Management	33
3.3.1.3	In process Inspection	34
3.3.1.4	Safety of workers	34
3.3.1.5	Environment preservation	34
3.3.1.6	Evaluation of compliance obligation	34
3.3.1.7	Storage and preservations	34
3.3.1.8	Security Control	34
3.3.1.9	Waste Effluent Control	35
3.3.1.10	Sludge Lagoons:	35
3.4	General safety precautions	35
3.5	Safety precautions for workers	36
3.6	Incident & Crisis Management through implementation of BCP Manual	37
3.6.1	Objectives of ICMP	37
3.6.2	Definition of Incident, Major Incident and Crisis	37
3.7	Emergency Response Plan	38
3.8	Occupational Health & Safety	39
3.10	SPL Management initiatives to Combat COVID-19	40

1. Introduction

1.1 Brief Profile of Security Papers Limited (SPL)

Security Papers Limited (SPL) was established in 1965. The basic function of the Company was and still is to manufacture security paper for banknotes and other security documents.

Brief history of the Company is as under:

Incorporation of the Company (as a private Company)	1965
Signing of contract for the supply of Paper Machine-1 (PM-1) with Mills-Paugh, U. K.	1966
Conversion into public Company	1967
Listing on the Karachi Stock Exchange	1967
Start of commercial production of PM-1	1969
Signing of contract for supply of Paper Machine-2 (PM-2) with Voith Paper, Germany (Obsolete PM-1 made redundant and scrapped)	2001
Start of Commercial Production of PM-2	2003
Formal inauguration of PM-2 by the Prime Minister	2004
Commissioning of Co-Generation Power Plant	2009
Modification and upgrading of plant	2011
Commissioning of new Mould Cover preparation building	2012
Commissioning of Dry-Cleaning Plant	2014
Commissioning of Thread Unwind System	2015
Production of Passport Paper	2016
Installation of Breaker and Beater Assemblies and Stainless-Steel Chests	2018

Security Papers Ltd. manufactures security papers for Bank Notes and other security documents from 100% indigenous raw materials i.e. comber and textile cuttings of the highest quality. It has successfully been meeting the paper requirements of its customers for printing Banknotes, Prize Bonds, Non-judicial Stamp Paper, Share Certificates, Child Registration/Family Registration Certificate, Passport, Parchment, degrees and certificates for various educational institutions of Pakistan.

1.1.1 Vision

“To be a nationally and internationally recognized and accepted security paper producing organization, providing highest quality paper to our customers, both in Pakistan and abroad.”

1.1.2 Mission

“We are the only National Organization in Pakistan producing strategically important security paper products for the nation. We have developed a unique set of strengths and competencies. We wish to build on these assets and will strive continuously to achieve higher levels of excellence.

Our mission is to exceed the expectations of our customers in producing, with security and efficiency, highest quality paper products, employing international best practices and applying an integrated approach to product research and development, manufacturing technology, operations management, counterfeit deterrence, materials procurement, human resource management, financial management and information systems.”

1.2 Production Facilities

Production Department is a major department in the Company. It comprises of following sub-sections:

1. Dry Cleaning Unit
2. Pulp Mill
3. Machine House
4. Finishing

The Production Department plans production activity as per demand of customers. All production processes are effectively monitored, corrective actions are taken, and preventive measures are planned and implemented. We have continued our efforts to expand the product base to achieve the economies of scale and optimize the production capacity. New paper trial runs are carried out from time to time. Company has made a number of modifications for upgrading the Plant which will improve its potential and capability to produce paper of international quality.

1.3 Operational Control, SOP (Health, Safety & Environment)

All operations and processes are controlled through Standard Operating Procedures. All processes are closely monitored and inspected for HSE compliance through periodic surveillance visits of designated HSE Inspectors and senior officials. Appropriate corrective and preventive actions are taken for each violation, deficiencies and incompliance. Periodic Noise, lighting intensity (Lux), PPEs & Tools/Equipment safety, Gas emission, Effluent quality inspection/calibrations are carried out and complied with standards.

Following types of maintenance is being carried out to make processes more efficient.

- Routine Maintenance
- Break down Maintenance
- Preventive Maintenance
- Predictive maintenance

1.4 Management Systems Certifications



1.5 Environmental Policy

Security Papers Limited is committed to work in an environment that ensures safe and healthy workplace for its employees and minimizes any potential negative impact on the environment either because of its products or because of its operations.

Relevant Policies are attached as Annexure.

1.6 Display of Safety and Environmental Warning signs Chemical Storage Areas.

Safety awareness signs, MSDS (Translated) and Work Instructions dangerous area identification sign boards and Safety Zones for assigning responsibility at potential high-risk areas have been placed at relevant locations throughout the organization. Liquid Chemicals Stored with secondary containment.



1.7 Processes, Systems, & Procedures for Legal Compliance

A Standard System Procedure 'Legal & other requirements and evaluation of compliance (HSE/SPL-SP-4.3.2, 4.5.2)' has also been established, complied and communicated to relevant process owners.

All Environmental, Health and Safety regulatory standards list has been established and addressed in Legal Register (F--4.3.1-03). Legal register is updated as and when required to ensure appropriate Engineering and administrative Controls are implemented where required.

1.8 Designated smoking area

SPL factory has been declared as 'NO SMOKING ZONE'. Even no designated area has been established. Eating 'Paan', Gutka, 'Chewing gum' etc. are also strictly prohibited within organization especially in manufacturing facilities/areas.

1.9 Emergency Plan and Procedure for preparedness and response

A Business Continuity Plan-BCP is the complete process of creating systems of prevention and recovery to deal with potential threats to the company. A well-crafted Business Continuing Planning (BCP) Manual has also been developed by BCP Committee that caters for Emergency Response Procedures as well as Incident and Crisis Management Plan while applying the best practices in the industry. This comprehensive document has been duly approved by the Board of Directors.

A well-organized Crisis Management Cell (CMC) has been established to respond in case of all types (e.g. Health /Safety, Environmental and Security) of emergencies.

For appropriate response, a Standard Operating Procedure 'Crisis Management Cell (Site Emergency Response Plan), (Q/E/SPL-SOP-SEC), has been established and complied. Regular periodic Mock drills including nighttime drills have been conducted throughout the year.

1.10 Reward & Recognition Program & Continual improvement initiatives

The Company focuses on time-based efforts for reducing and eliminating unsafe and unhealthy work practices/conditions. A comprehensive document with appropriate standard operating procedures/manuals and specifications have been established to ensure Occupational Health, Safety, Environment, and Security at workplace.

Management furnishes avenues for personal development and empower its employees with freedom to express their concerns as well as highlighting suggestions for continual improvement by introducing a robust Reward & Recognition Program that includes "Employee of the Quarter Award, Innovative Idea Scheme, and KAIZEN Incentive Programs".

Employee of the Quarter Award has also been initiated to appreciate employees making significant contributions in fostering HSE culture at the workplace.



Kaizen is based on the belief that everything can be improved, and nothing is status quo. We encourage formation of cross functional team of staff, workers and Officers to share incremental improvement ideas that are also linked with generous incentives

Kaizen Incentive Program was introduced to foster a positive and conducive cross functional team building and synergistic environment through encouraging employees at all levels to come up with unique, innovative, and out of box ideas. Management recognizes and rewards these efforts by linking such incremental improvement ideas with generous incentives.



5S System- a lean method for implementing order in the workplace has also been introduced. Five phases of 5S include Sorting, Setting, Shining, Standardizing, and Sustaining. Key benefits associated with implementation of 5S include increased productivity, improved safety, reduction in waste, and workforce commitment for better workplace environment.

1.11 Trainings & Awareness Sessions

We consider Workplace Health, Safety & Environment (HSE), Sustainability, Chemical Spill and Managing Safely as our first priority. In this perspective, the company invested approx. PKR 1.2 million during FY 2020-21 in arranging high quality PPEs to its workforce through structured mapping at all relevant job levels to ensure their appropriate usage.





Workers' representation has been ensured in formal joint Management–Worker Health Safety Committees to provide open platform for consultation and participation of workers.

A series of awareness sessions on OH&S, Environment and Sustainability such as COVID- 19 Preventive measures, Firefighting, Managing Safety at workplace, Healthcare policy awareness, 5S, Chemical spill, Toolbox talks were also conducted. Besides that, technical trainings on behavioral safety and job hazard analysis, permit to work, sessions etc. were also conducted. Approx. 590 training man-hours which is 67% of total training man-hours were devoted to above topics. Besides that, we have also introduced the concept of Toolbox talks for inculcating workplace safety habits that are being conducted on every shift by the concerned Supervisors with their workforce before the commencement of every shift.

1.12 Environment Awareness Activities

The top management is strongly committed to demonstrate our organization's role on national level to cope with environmental issues such as Climate Change, Solid waste generation, Greenhouse Gas emissions and water availability.

SPL is fully aware with this fact and keeping this in view, as a first step a Wastewater Treatment & Recycling Plant has been established which has the capacity to treat all and recycle one third of total water consumed.

SPL is fully compliant with ISO 14001:2015 (Environmental Management Standards) and got its second Surveillance Audit recently conducted in February 2021 by SGS Pakistan (Pvt.) Ltd.- the world's leading inspection, verification, testing and certification company. Our organization has never been involved in any environmental law violation and as such no legal action has ever been initiated against the Company.

1.13 Green Environment

Promoting a sustainable use of our ecosystems and preserving biodiversity is not a cause it is the key to our own survival. We believe that flourishing life on land is the foundation for our life on this planet. In this context, a large number of Neem trees (Over 100) are being planted in and around SPL facilities to comply with SEPA requirements during FY 2020-21.



1.14 NOC Obtained from SEPA

The organization also inducted the services of a reputable environmental consultant (M/s. EHS Services) who also prepared Hazardous Substance Management Plan (HSMP). This was a pre-requisite for obtaining NOC from Environmental Protection Agency for handling of Hazardous and Non-hazardous materials. SPL being an environmentally compliant organization submitted all legal and environmental requirements for obtaining NOC/license.

1.15 Environmental Monitoring

Further to ensure continuous Environmental Monitoring, a SEPA Certified Lab is engaged who carries out sampling of the Gas emissions (including SO_x, NO_x and CO which are emitted by our Generators, Boilers, Digesters, Incinerator, and Pool vehicles) as well as Drinking water, Effluent water, Ash and Noise as per legal requirements and capable to suggest any corrective action in case of any deviation from SEQs.

All stakeholders are thoroughly involved in the activity and well aware of the criticality of sampling activity. Therefore, a technical review of all emission reports carried out in each quarter to check level of compliance. (All test reports are attached as Annex).

1.16 Management of Raw Material Processing

Standard specifications of all raw materials have been established. Raw materials are tested qualitatively and quantitatively as per recognized standard test methods and sampling plans in fully equipped (QA) laboratories by qualified personnel. The quality status, identification and traceability have been maintained throughout operations. COA (Certificate of Analysis) is obtained from vendors/suppliers. Raw materials are handled stored and preserved as per relevant MSDS (Material Safety Data Sheet) and Company HIRAC (Hazard Identification, Risk Assessment and Control) HSE/SPL-SP-4.3.1

1.17 Liquid Effluent Management

Liquid Effluent discharge and critical properties are monitored and tested by in-house laboratories at suitable intervals, while annually tested by SEPA certified laboratories. Reports are audited and verified by qualified internal as well as external auditors / Independent Monitoring Consultant (IMC).

1.18 Solid Waste Management

SPL has its own scrapyard where hazardous and non-classified materials are managed in accordance with the international agreements signed by the Government of Pakistan. Hazardous waste is controlled at the point of generation and disposed as per regulatory requirements.

Waste Category	Unit	2019-20
Hazardous Solid Waste		
Batteries Dry Different	Nos.	76
Different Auto Spare with Filters	Lot	1
Monitors Unserviceable	Nos.	6
Ups/ Computer Unserviceable	Nos.	3
Printer Unserviceable	Nos.	3
Chloride Ups (10kv)	Nos.	1
Computer Accessories	Lot	1
Electrical Scrap & Different Spare	Lot	1
Oil Used Large Drums	Nos.	18
Oil Used Small Drums Mixed	Nos.	3
Batteries Different type Liquid	Nos.	15

1.16 Effluent Treatment Plant

SPL has fully operated and efficient Effluent Treatment Plant (ETP). In order to protect environment, liquid effluent is treated in Effluent Treatment Plant. The final environmental hazardous properties of effluents are monitored and controlled periodically to comply with SEQS before final discharge.

A special testing equipment has been recently procured to conduct the COD/ BOD testing via in-house facility (laboratory) of wastewater samples with increased frequency.



Sludge Lagoons: Solid pulp is separated from liquid effluent and dried in vast lagoons. Dry sludge has been tested for its quality properties from external lab and has been found non-hazardous for environment. Sludge is disposed of as per regulatory standards through approved suppliers/contractor.

1.17 Personal Protective Equipment (PPEs)

Standards for Use of PPE (SPL-SOP-HSE-01, Form-01) for a particular activity has been established, implemented, inspected and audited at workplace throughout the organization.

Personal Protective Equipment-PPEs have been provided to all departments through structured mapping at all relevant job levels to ensure their appropriate usage. Quality awareness, signs, dangerous area identification sign boards and Safety Zones for assigning responsibility at potential high-risk areas have been placed. The process of incident reporting has been revamped and made comprehensive. The Company provides ambulance and offer consultation and first aid facilities to the workers.

1.18 Clean environmental excretion

To achieve highest degree of clean environment this is part of our mission and goals. Company has been certified and upgraded its Integrated Managements System (IMS) to comply with New ISO 14001:2015 (Environment Management System), ISO 9001:2015 (Quality Management System) and ISO 45001:2018 (Occupational Health and safety Management System).

1.19 Production mechanism for cleaner Air, Water, Noise etc.

Engineering and Administrative Controls have been applied at each Environmental Hazard generating processes. e.g., secondary containments

have been installed to control liquid chemicals spills. CCTV cameras have been installed throughout organization.

Noisy areas have been made well protected through specific construction. Effluent treatment dosing system is regulated by competent qualified personnel.

- Environmental Aspects, Hazard Identification, Risk Assessment and Control (HIRAC), HSE/SPL-SP-4.3.1 is implemented.
- Operational Control (HSE/SPL-SOP- 4.4.6) is implemented.

1.20 Environmental Impact Assessment (EIA)

In order to manage Environmental and Health and Safety Risks, a detailed Aspect Impact Analysis Report (F – 4.3.1 – 01), has been established. Appropriate controls have been applied to eliminate and mitigate the risks against each recognized environmental Aspect/Risk throughout the organization.

A Standard System Procedure 'Environmental Aspects, Hazard Identification, Risk Assessment and Control (HIRAC), HSE/SPL-SP-4.3.1' has been established and implemented, reflecting ISO 14001:2015 and ISO 45001:2018 Management Systems Standard Requirements.

1.21 Energy Conservation Measures

The Company aims to improve its energy mix as well as efficiency in increasing its energy requirements. The Management has initiated the procurement of a new gas generator of 1.4 MW capacity for modern and sustainable energy services.

All conventional lights have been replaced with LED lights which are 49% more energy efficient and generate less heat than CFLs. As a result of these efforts, we expect annual savings in excess of PKR 5 million while receiving brighter illumination effects.

1.22 Awards & Recognition



17th AEEA Award-2020



**MAP 35th Corporate
Excellence Award-2020**



**5th position in
PSX Award-2018**

2. Statutory Requirements

Presented in this section are the Policy, Legal and Administrative Framework applicable to Project in the context of sustainable development. All legal provisions relevant to environmental protection applicable to the planning, construction and operation of the Plant were identified under the scope of the EMP. The proponent has to be well aware of these requirements and comply with the provisions as applicable and necessary.

2.1 Administrative Framework

Before the 18th amendment in the Constitution of Pakistan, the environmental issues were governed under the federal regime through Pakistan Environmental Protection Act, 1997. As a result of the 18th Amendment this subject is now in the exclusive domain of the provincial government. The Ministry of Environment at the federal level was abolished. Its functions related to national environmental management were transferred to the provinces. To manage the international obligations in the context of environment, a new ministry - the Ministry of Climate Change – was created at the federal level. As of now, all four provinces have enacted their own environmental protection laws.

For Sindh province, the Sindh Environmental Protection Act, 2014 (SINDH ACT No. VIII OF 2014) was passed by the Provincial Assembly of Sindh on 24th February, 2014 and assented to by the Governor of Sindh on 19th March, 2014 and published in official gazette on Thursday March 20, 2014. (Hereinafter the Sindh Environmental Protection Act, 2014 is referred to as the “2014 Act”).

Under the 2014 Act, the Environmental Protection Council (*the “EPC”*) has been formed consisting of Chief Minister as Chairman with Minister in charge of Environment Protection Department, Addl. Chief Secretary, Planning & Development Department, Government of Sindh and Secretaries of Environment, Finance, Public Health Engineering, Irrigation, Health, Agriculture, Local Government, Industries, Livestock & Fisheries Forest & Wildlife, Energy, Education Departments Government of Sindh and Divisional Commissioners of Sindh. Non-official members are also included (i.e. representatives of Chamber of Commerce & Industry and from medical or legal professions etc.) along with DG, EPA & two Members of Provincial Assembly also form part of EPC.

The EPC within the framework of the 2014 Act acts as a policy making body. The functions and powers of EPC include coordination & supervision of provisions of Act, approving provincial environmental & sustainable development policies & SEQs, provide guidance for protection & conservation, consider annual Sindh Environmental Report, deal with interprovincial and federal provincial issues, provide guidance for bio safety & assist Federal Government in implementation of various provisions of UN Convention on laws on Seas (UNCLOS).

Sindh Environmental Protection Agency (*the “SEPA”*) establishes under the provisions of the 2014 Act is headed by Director General (DG) with the aim to exercise the powers and perform the functions assigned to it under the provisions of the 2014 Act and the rules and regulations made there under. The SEPA acts as the executive body of the provisions of the 2014 Act. It has technical and legal staff and may form advisory committees. SEPA requires preparing environmental policies, taking measures for implementation of environmental policies, preparing Sindh Environment Report and preparing or revising Sindh Environmental Quality Standards. It also establishes systems and procedures for surveys, surveillance, monitoring, measurement, examination, investigation research, inspection and audit to prevent and control pollution and to estimate the costs of cleaning up pollution and rehabilitating the environment and sustainable development. SEPA would also take measures for protection of environment such as to promote research; issues licenses for dealing with hazardous substances, certify laboratories, identify need for or initiate legislation, specify safeguards etc. SEPA would also encourage public awareness and education regarding environmental issues. SEPA has powers to enter or inspect under a warrant issued by Environmental Protection Tribunal or a Court search at any time, any land or building etc. where there are reasonable grounds to believe that an offence has been or is being or likely to be committed. SEPA may also take samples, arrange for testing or confiscate any article in discharge of their duties.

The 2014 Act also provides for establishing Sindh Sustainable Fund derived from various sources such as voluntary contributions or fees generated etc. This fund is utilized for protection, conservation or improvement of environment. Under the 2014 Act and rules and regulations made there under a complete framework for pre and post approval is given, which a proponent of project requires to comply with.

2.2 Statutory Framework

As stated supra after 18th Amendment in Constitution of Pakistan, 1973 subject of environmental protection is devolved to the provinces and all provinces have enacted their own provincial environmental protection acts, rules and regulations. Now all matters related to environmental protection are governed under respective provincial environmental protection laws. However, it would apposite to give here a brief history of the development of statutory environmental framework in the Country. Prior to the 18th Amendment to the Constitution of Pakistan in 2010, the legislative powers were distributed between the federal and provincial governments through two ‘lists’ attached to the Constitution as Schedules. The Federal list covered the subjects over which the federal government had exclusive legislative power, while the ‘Concurrent List’ contained subjects regarding which both the federal and provincial governments could enact laws. The subject of ‘environmental pollution and ecology’ was included in the Concurrent List and hence allowed both the national and

provincial governments to enact laws on the subject. However, as a result of the 18th Amendment this subject is now in the exclusive domain of the provincial government. The Ministry of Environment at the federal level was abolished. Its functions related to national environmental management were transferred to the provinces. To manage the international obligations in the context of environment, a new ministry - the Ministry of Climate Change – was created at the federal level. The PEPA 1997 is no longer applicable to the provinces. The provinces have enacted their own environmental protection laws. These provincial laws are largely based on PEPA 1997 and, hence, provide the same level of environmental protection as the parent law. Between 1993 and 2010, the Pak-EPA promulgated several rules, regulations, standards, and guidelines to implement the provisions of the PEPA 1997. The province of Sindh has made its own rules and regulations. However, sectorial guidelines made under PEPA 1997 are still useful document to benefit from.

Sindh EPA has taken lead in finalizing and notifying the Sindh Provincial rules, regulations and standards.

- On December 16, 2014, SEPA enacted the Sindh Environmental Protection Agency (Review of Initial Environmental Examination and Environmental Impact Assessment) Regulations, 2014 (the “IEE-EIA Regulations”).
- On December 19, 2014, SEPA enacted the (i) Environmental Sampling Rules 2014, (ii) Hazardous Substances Rules, 2014, (iii) Sindh Environmental Protection (Composition of Offences and Payment of Administrative Penalty) Rules 2014, (iv) Sindh Environmental Protection Tribunal Rules, 2014, (v) Sindh Hospital Waste Management Rules, 2014, (vi) Sindh Environmental Quality Standards (Certification of Environmental Laboratories) Rules 2014, (vii) Sindh Prohibition of Non-degradable Plastic Products (Manufacturing, Sale and Usage) Rules 2014, (viii) Sindh Sustainable Development Fund (Procedure and Utilization) Rules 2014, and (ix) Sindh Environmental Quality Standards (Self-Monitoring and Reporting by Industry) Rules 2014.
- On June 28, 2016, the Sindh Environmental Industrial Waste Water, Effluent, Domestic, Sewerage, Industrial Air Emission and Ambient Air, Noise for Vehicles, Air Emissions for Vehicles and Drinking Water Quality Standards, 2015 have been notified.

For purpose of this report, the 2014 Act, Sindh Environmental Protection Agency (Review of Initial Environmental Examination and Environmental Impact Assessment) Regulations, 2014 (“*2014 Regulations*”) and other relevant rules and regulations made under the 2014 Act are applicable.

2.3 Constitutional Provision

The Constitution of Pakistan is supreme law of the Country. It is one of the few constitutions in the world, which covers environmental protection and considers it one of the fundamental rights of citizens of Pakistan. Article 9 & 14 of the Constitution bestows fundamental right to life and dignity to every citizen. The Supreme Court of Pakistan in landmark judgment in the case of Shehla Zia and others versus WAPDA (1994) referred to both these Articles and laid down the foundation of modern environmental law in Pakistan. The august Court held that the word “life” in the constitution has not been used in a limited manner. A wide meaning should be given to enable a man not only to sustain life but to enjoy it. Under the Constitution, Article 14 provides that the dignity of man and subject to law the privacy of home shall be inviolable. The fundamental right to preserve and protect the dignity of man under Article 14 is unparalleled and could be found only in few Constitutions of the world. The Constitution guarantees dignity of man and also right to “life” under Article 9 and if both are read together, question will arise whether a person can be said to have dignity of man if his right to life is below bare necessity like without proper food, clothing, shelter, education, health care, clean atmosphere and unpolluted environment.

2.4 Sindh Environmental Protection Act, 2014

The 2014 Act as stated above is the basic legislative tool empowering the provincial government to frame regulations for the protection of the environment. The Act envisages protection, improvement, conservation & rehabilitation of environment of Sindh with the help of legal action against polluters and green awakening of communities. It equally lays emphasis for the preservation of the natural resources of Sindh and to adopt ways and means for restoring the balance in its eco-system by avoiding all types of environmental hazards. The act is applicable to a broad range of issues and extends to air, water, industrial liquid effluent, marine, and noise pollution, as well as to the handling of hazardous wastes.

The following articles of the SEPA 2014 have a direct bearing on the proposed Project:

- Article 11(1): ‘Subject to the provisions of this Act and the rules and regulations therein, no person shall discharge or emit or allow the discharge or emission of any effluent, waste, pollutant, noise or any other matter that may cause or likely cause pollution or adverse environmental effects, as defined in Section 2 of this Act, in an amount, concentration or level which is in excess to that specified in Sindh Environmental Quality Standards...’
- Article 11(2): ‘All persons, in industrial or commercial or other operations, shall ensure compliance with the Environmental Quality Standards for ambient air, drinking water, noise or any other Standards established under section 6(1)(g)(i); shall maintain monitoring records for such compliances;

shall make available these records to the authorized person for inspection; and shall report or communicate the record to the Agency as required under any directions issued, notified or required under any rules and regulations.'

- Article 14 (1): 'Subject to the provisions of this Act and the rules and regulations, no person shall cause any act, deed or any activity', including;
 - (b) disposal of solid and hazardous wastes at unauthorized places as prescribed;
 - (c) dumping of wastes or hazardous substances into coastal waters and inland water bodies; and
 - (d) release of emissions or discharges from industrial or commercial operations as prescribed.
- Article 15 (1): 'Subject to the provisions of this Act, no person shall operate or manufacture a motor vehicle or class of vehicles from which air pollutants or noise are being emitted in an amount, concentration or level which is in excess of the Sindh Environmental Quality Standards or, where applicable, the standards established under sub-clause (i) of clause (g) of sub-section (1) of section 6'.
- Article 17(1): 'No proponent of a project shall commence construction or operation unless he has filed with the Agency an initial environmental examination or environmental impact assessment, and has obtained from the Agency approval in respect thereof'
- Article 17(2): The agency shall;
 - a) review the initial environmental examination and accord its approval, subject to such terms and conditions as it may prescribe, or require submission of an environmental impact assessment by the proponent; or
 - (b) review the environmental impact assessment and accord its approval subject to such terms and conditions as it may deem fit to impose or require that the environmental impact assessment be re-submitted after such modifications as may be stipulated or decline approval of the environmental impact assessment as being contrary to environmental objectives.
- Article 17(3): 'Every review of an environment impact assessment shall be carried out with public participation and, subject to the provisions of this Act, after full disclosure of the particulars of the project'.
- Article 17(4): 'The Agency shall communicate its approval or otherwise within a period of two months from the date that the initial environmental examination is filed, and within a period of four months from the date that the environmental impact assessment is filed complete in all respects in

accordance with the regulations, failing which the initial environmental examination or, as the case may be, the environmental impact assessment shall be deemed to have been approved, to the extent to which it does not contravene the provisions of this Act and the rules and regulations’.

- Article 20(1): ‘The Agency shall from time to time require the person in charge of a project to furnish, within such period as may be specified, an environmental audit or environmental review report or environmental management plan containing a comprehensive appraisal of the environmental aspects of the project’.
- Article 20(2): The report of a project prepared under sub-section (1) shall include:
 - (a) analysis of the predicted qualitative and quantitative impact of the project as compared to the actual impact;
 - (b) evaluation of the efficacy of the preventive, mitigation and compensatory measures taken with respect to the project; and
 - (c) recommendations for further minimizing or mitigating the adverse environmental impact of the project.
- Article 20(3): ‘Based on its review of the environmental audit report, the Agency may, after giving the person in charge of the project an opportunity of being heard, direct that specified mitigation and compensatory measures be adopted within a specified time period and may also, where necessary, modify the approval granted by it under section 17’.

2.5 Sindh EPA (Review of IEE and EIA) Regulations, 2014

Sindh Environmental Protection Agency (Review of IEE / EIA) Regulations, 2014 (“2014 Regulations”) made in exercise of powers conferred under section 37 of the Act 2014 provide the necessary guidelines on the preparation, submission, & review of Initial Environmental Examinations (IEEs) and Environmental Impact Assessments (EIAs). The regulations categorize projects in three categories provided in Schedule I, II and III of the 2014 Regulations.

2.6 Guidelines for Public Consultation

Public consultation is mandated under Sindh’s environmental law. Regulation 11 of the 2014 Regulations provides the general requirements whereas the sectoral guidelines indicating specific assessment requirements are provided in the Guidelines for Public Consultation 1997 (the ‘Guidelines’).

These are summarized below:

- **Objectives of Public Involvement:** 'To inform stakeholders about the proposed project, to provide an opportunity for those otherwise unrepresented to present their views and values, providing better transparency and accountability in decision making, creating a sense of ownership with the stakeholders';
- **Stakeholders:** 'People who may be directly or indirectly affected by a proposal will clearly be the focus of public involvement. Those who are directly affected may be project beneficiaries, those likely to be adversely affected, or other stakeholders. The identification of those indirectly affected is more difficult, and to some extent it will be a subjective judgment. For this reason, it is good practice to have a very wide definition of who should be involved and to include any person or group who thinks that they have an interest. Sometimes it may be necessary to consult with a representative from a particular interest group. In such cases the choice of representative should be left to the group itself. Consultation should include not only those likely to be affected, positively or negatively, by the outcome of a proposal, but should also include those who can affect the outcome of a proposal';
- **Mechanism of consultations:** 'Provide sufficient relevant information in a form that is easily understood by non-experts (without being simplistic or insulting), allow sufficient time for stakeholders to read, discuss, consider the information and its implications and to present their views, responses should be provided to issues and problems raised or comments made by stakeholders, selection of venues and timings of events should encourage maximum attendance';
- **Timing and Frequency:** Planning for the public consultation program needs to begin at a very early stage; ideally it should commence at the screening stage of the proposal and continue throughout the EIA process;
- **Consultation Tools:** Some specific consultation tools that can be used for conducting consultations include; focus group meetings, needs assessment, semi-structured interviews; village meetings and workshops;
- **Other Important Considerations:** 'The development of a public involvement program would typically involve consideration of the following issues; objectives of the proposal and the study; identification of stakeholders; identification of appropriate techniques to consult with the stakeholders; identification of approaches to ensure feedback to involved stakeholders; and mechanisms to ensure stakeholders' consideration are taken into account'.

As above, the Guidelines for Public Consultation introduce effective ways to inform the contents of the project to the general public during the planning stage

and that eventually consensus building toward the implementation of project is reached.

Incorporating public involvement into the stages of environmental assessment is explained in the guidelines that public consultation meeting has to be carried out after the works on "developing options and assessing and mitigating impacts" for comments and assessment.

2.7 Sindh Environmental Quality Standards (SEQS)

On June 28, 2016, the Sindh Environmental Industrial Wastewater, Effluent, Domestic, Sewerage, Industrial Air Emission and Ambient Air, Noise for Vehicles, Air Emissions for Vehicles and Drinking Water Quality Standards, 2015 have been notified by Sindh EPA.

Table 2.1 below shows Sindh environmental quality standard for ambient air:

Table 2.1: Sindh Environmental Quality Standard for Ambient Air			
Pollutant	Time-weighted average	Concentration in Ambient Air	Method of measurement
Sulfur Dioxide (SO ₂)	Annual Average*	80µg/m ³	Ultraviolet Fluorescence Method
	24 hours**	120µg/m ³	
Oxides of Nitrogen as (NO)	Annual Average*	40µg/m ³	Gas Phase Chemiluminescence
	24 hours**	40µg/m ³	
Oxides of Nitrogen as (NO ₂)	Annual Average*	40µg/m ³	Gas Phase Chemiluminescence
	24 hours**	80µg/m ³	
O ₃	1 hour	130µg/m ³	Non dispersive UV absorption méthode
Suspended Particulate Matter (SPM)	Annual Average*	360µg/m ³	High volume Sampling, (Average flow rate not less than 1.1m ³ /minute)
	24 hours**	500µg/m ³	
Respirable Particulate Matter (PM10)	Annual Average*	120µg/m ³	B Ray absorption method
	24 hours**	150µg/m ³	
Respirable Particulate Matter (PM2.5)	Annual Average*	40µg/m ³	B Ray absorption method
	24 hours**	75µg/m ³	
	1 hour	15µg/m ³	
Lead (Pb)	Annual Average*	1µg/m ³	ASS Method after sampling using EPM 2000 or equivalent Filter paper
	24 hours**	1.5µg/m ³	
Carbon Monoxide (CO)	8hours**	5mg/m ³	Non Dispersive Infra Red (NDIR) method
	1hours	10mg/m ³	
*Annual arithmetic means of minimum 104 measurements in a year taken twice a week 24 hourly at uniform interval.			
**24 hourly / 8 hourly values should be met 98% of the in a year. 2% of the time, it may exceed but not on two consecutive days.			

Table 2.2 shows the standards for motor vehicle noise.

Table 2.2: The Motor Vehicle Ordinance (1965) and Roles (1969)		
Parameter	Standards (maximum permissible limit)	Measuring method
Noise	85dB(A)	Sound-meter at 7.5meter from the source

Table 2.3 shows the Sindh Environmental Quality Standard for noise.

Table 2.3: Sindh Environmental Quality Standard for Noise			
S. No.	Category of Area / Zone	Limit it in dB(A) Leq*	
		Day Time	Night Time
1	Residential area (A)	55	45
2	Commercial area (B)	65	55
3	Industrial area (C)	75	65
4	Silence Zone (D)	50	45
Note: 1	Day time hours: 6.00 a. m to 10.00 p. m		
2	Night time hours: 10.00 p. m to 6.00p. m		
3	Silence zone; Zone which are declared as such by competent authority. An area comprising not less than 100 meters around hospitals, educational institutions and courts.		
4	Mixed categories of areas may be declared as one of the four above-mentioned categories by the competent authority.		
*dB(A)Leq	Time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.		

The SEQs for effluents are shown in Table 2.4 given below:

Table 2.4: Sindh Environmental Quality Standard for Municipal & Liquid Industrial Effluents					
S. No.	Parameter	Into Inland Waters	Into Sewage Treatment	Into Sea	unit
1	Temperature or Temp. increase	<3	<3	<3	°C
2	pH value (H ⁺)	6-9	6-9	6-9	
3	Biological Oxygen Demand (BOD) ₅ at 20 °C	80	250	80	mg/l
4	Chemical Oxygen Demand (COD) _{Cr}	150	400	400	mg/l
5	Total Suspended Solids (TSS)	200	400	200	mg/l
6	Total Dissolved Solids (TDS)	3500	3500	3500	mg/l
7	Oil and Grease	10	10	10	mg/l
8	Phenolic Compounds (as Phenol)	0.1	0.3	0.3	mg/l
9	Chloride (as Cl ⁻)	1000	1000	SC	mg/l
10	Fluoride (as F ⁻)	10	10	10	mg/l
11	Cyanide (as CN ⁻)total	1.0	1.0	1.0	mg/l
12	An-ionic detergents (as MBAS)	20	20	20	mg/l
13	Sulphate(SO ₄ ²⁻)	600	1000	SC	mg/l
14	Sulphide (S ²⁻)	1.0	1.0	1.0	mg/l
15	Ammonia (NH ₃)	40	40	40	mg/l

16	Pesticides	0.15	0.15	0.15	mg/l
17	Cadmium	0.1	0.1	0.1	mg/l
18	Chromium (trivalent and hexavalent)	1.0	1.0	1.0	mg/l
19	Copper	1.0	1.0	1.0	mg/l
20	Lead	0.5	0.5	0.5	mg/l
21	Mercury	0.01	0.01	0.01	mg/l
22	Selenium	0.5	0.5	0.5	mg/l
23	Nickel	1.0	1.0	1.0	mg/l
24	Silver	1.0	1.0	1.0	mg/l
25	Total toxic metals	2.0	2.0	2.0	mg/l
26	Zinc	5.0	5.0	5.0	mg/l
27	Arsenic	1.0	1.0	1.0	mg/l
28	Barium	1.5	1.5	1.5	mg/l
29	Iron	8.0	8.0	8.0	mg/l
30	Manganese	1.5	1.5	1.5	mg/l
31	Boron	6.0	6.0	6.0	mg/l
32	Chlorine	1.0	1.0	1.0	mg/l

The SEQS for drinking water are shown in Table 2.5 given below:

Table 2.5: Sindh Environmental Quality Standards for Drinking Waters (mg/l)					
S.#	Properties/ Parameters	Standard Values for Pakistan	S.#	Properties / Parameters	Standard Values for Pakistan
Bacterial			Chemical		
1	All water intended for drinking (E.Coli or Thermo tolerant Coliform bacteria)	Must not be detectable in any 100 ml sample	Essential Inorganics (mg/liter)		
			13	Aluminum (Al) mg/l	≤ 0.2
			14	Antimony (Sb)	≤ 0.005
2	Treated water entering the distribution system (E.Coli or thermo tolerant coliform and total coliform bacteria)	Must not be detectable in any 100 ml sample	15	Arsenic (As)	≤ 0.05
			16	Barium (Ba)	0.7
			17	Boron (B)	0.3
3	Treated water in the distribution system (E.coli or thermo tolerant coliform and total coliform bacteria)	Must not be Detectable in any 100 ml sample. In case of large supplies, where sufficient samples are examined, must not be resent in 95% of the samples taken throughout any 12-month period.	18	Cadmium (Cd)	0.01
			19	Chloride (Cl-)	< 250
			20	Chromium (Cr)	≤ 0.05
			21	Copper (Cu)	2
			Organic (mg/L)		
			22	Phenolic compounds	<0.0002

			Toxic Inorganics (mg/liter)		
			23	Cyanide (CN) ⁻	≤ 0.05
			24	Fluoride (F)	≤ 1.5
			25	Lead (Pb)	≤ 0.05
			26	Manganese (Mn)	≤ 0.5
Physical			27	Mercury (Hg)	≤ 0.001
4	Color	< 15 TCU	28	Nickel (Ni)	≤ 0.02
5	Taste	Non-objectionable/ Acceptable	29	Nitrate (NO ₃) ⁻	≤ 50
6	Odor	Non-objectionable/ Acceptable	30	Nitrite (NO ₂) ⁻	≤ 3
7	Turbidity	< 5 NTU	31	Selenium (Se)	≤ 0.01
8	Total Hardness as CaCO ₃	< 500 mg/l	32	Residual Chlorine	0.2-0.5 At consumer end 0.5-1.5 at source
9	TDS	<1000			
10	pH	6.5-8.5			
Radioactive			33	Zinc (Zn)	5.0
11	Alpha Emitters bq/L	0.1			
12	Beta emitters	1			

2.8 Hazardous Substances Rules 2014

These rules may be called the Hazardous Substances Rules, 2014.

Substances prescribed as hazardous substances. As provided in subclause (b) of clause (xxv) of section 2, substances listed in Schedule-I are hereby prescribed as hazardous substances.

Packing and labeling. -

(1) A container of a hazardous substance shall be of such size, material and design as to ensure that –

- (a) it can be stored, transported and used without leakage and safely;
- (b) the hazardous substance therein does not deteriorate in a manner as to render it more likely to cause, directly or in combination with other substances, an adverse environmental effect.

(2) The following information shall be printed conspicuously, legibly and indelibly on every container of a hazardous substance:

- (a) name of the hazardous substance;
- (b) name, address and license number of the licensee;

- (c) net contents (volume or weight);
- (d) date of manufacture and date of expiry, if any;
- (e) a warning statement comprising –
 - (i) the word “DANGER!” in red on a contrasting background;
 - (ii) a picture of a skull and cross-bones;
 - (iii) pertinent instructions for use, storage and handling and safety precautions relating thereto.
- (f) instructions regarding return or disposal of the empty container:

Provided that if the hazardous substance has an inner container as well as an outer container, the information shall be printed on both containers:

Provided further that if it is impracticable to print the aforesaid information on the container itself due to its size, material or design, the same shall be printed on a label or tag which shall be conspicuously affixed or attached to the container in such manner as to render it difficult to remove. The empty chemical containers or drums may not be used for other purposes:

- (g) basic instructions mentioning immediate steps to be taken in case of any accident or emergency, preferably in local language.

Conditions for premises.

- (1) The premises in which a hazardous substance is generated, collected, consigned, treated, disposed of, stored or handled shall

- (a) comply with the conditions specified in Schedule-IV;
- (b) be fitted with a notice on the outer door or gate bearing the following information:
 - (i) the words “DANGER! HAZARDOUS SUBSTANCE!” in red, on a contrasting background; and
 - (ii) a prominent picture of a skull and cross-bones.

- (2) In case of import of hazardous substances, proponent shall provide approval from Climate Change Division (International Convention Wing) Government of Pakistan.

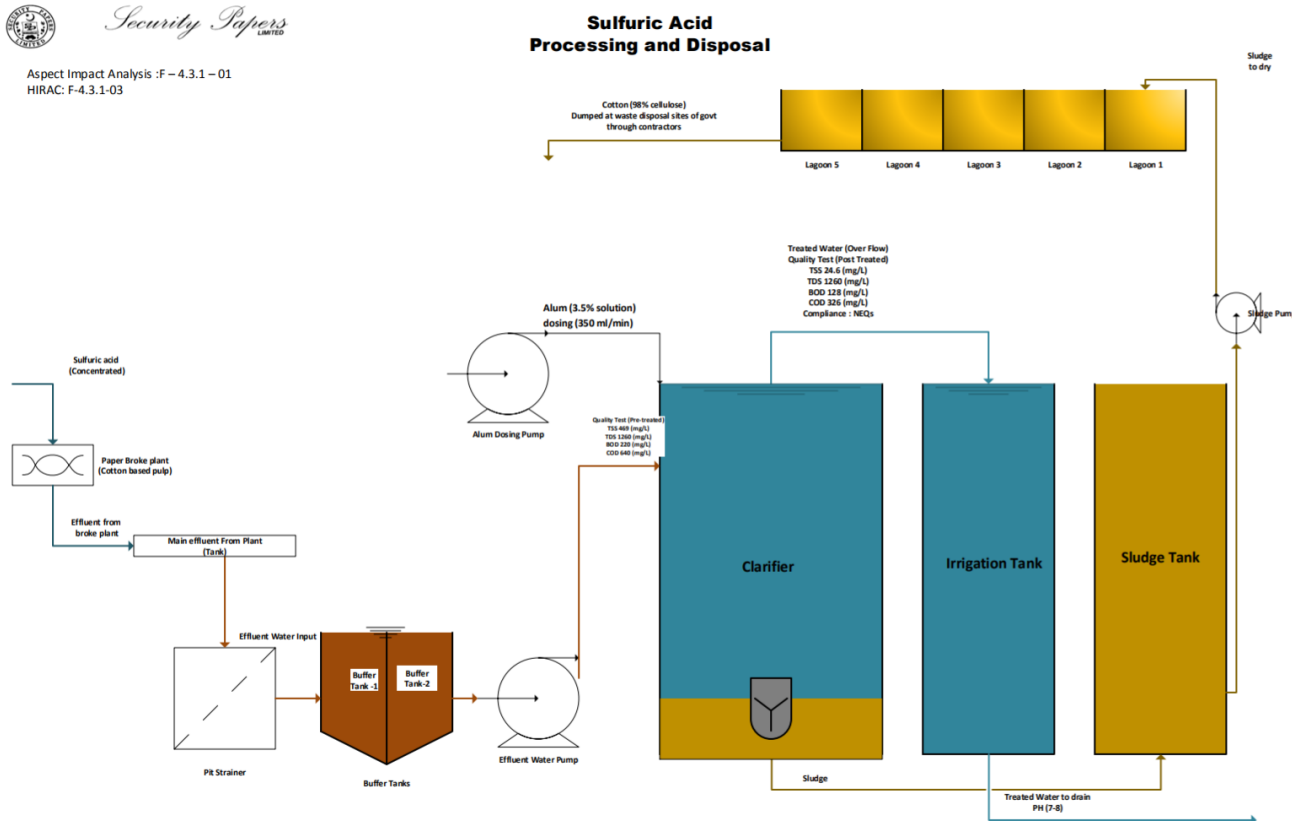
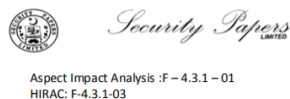
3. Hazardous Substances Management Plan (HSMP)

3.1 Sulphuric Acid (Conc. 95% & Qty. 45,000 kgs per anum)

Sulphuric Acid is procured from the approved supplier; the supplier's profile and performance are evaluated periodically and audited by Internal Auditors as well as External Auditors of ISO 9001:2015 & 14001:2015 certification body.

3.1.1 Use in Operations

Technical Grade Sulphuric acid (95% min :) is used in repulping process as per lay out attached:



3.1.1.1 Broke Plant

Recycling of 100% cotton-based waste security paper is carried out from different sections of the plant through re-pulping. In this process Sulphuric acid is used to dissolve the wastepaper to reproduce pulp (Broke).

3.1.1.2 Quality Management

Quality Control/and Quality Assurance: In order to ensure Quality of Sulphuric Acid (as raw material) & process parameters compliance, full equipped Laboratories and analysis facilities are available within factory. Both qualitative & quantitative analyses are performed by qualified personnel as per good lab practices using standard test methods, work instructions and standard operating procedures.

3.1.1.3 In process Inspection

During the process semi-finished product and processes are monitored periodically to control nonconformities and to comply standard specifications.

3.1.1.4 Safety of workers

A detailed Hazard Identification Risk Assessment and Control - HIRAC (F- 4.3.1-03) has been established and communicated to Section Heads. MSDS of Sulphuric acid has been translated in Urdu language and communicated to respective workers and available at workplace for safety compliance.

3.1.1.5 Environment preservation

To comply with environmental risk management, detailed environmental aspect / impact analysis report (F-4.3.1-01) has been established and communicated to relevant persons and workplaces.

3.1.1.6 Evaluation of compliance obligation

In order to evaluate compliance obligation a detailed legal register has been established with appropriated engineering and administrative controls to comply with Factories Act 2015, SEP Act 2014, Hazardous Substances Rules 2014, SMART rule 2014, SEQS etc., which are verified by external auditors from SGS.

3.1.1.7 Storage and preservations

Technical grade Sulphuric acid (95% min) is received in appropriate containers and handled, transported and stored as per companies standard operating procedures, reflecting (ISO 9001:2008, ISO 14001:2004 and ISO 45001:2018) Quality, Environment, & Occupational Health & Safety Management Systems requirement respectively. MSDS is fully complied. Appropriate Safety signs, (e.g. NFPA diamond, Use of PPEs, environmental protection signs, etc.) are placed, spill kits and secondary containments, are available at storage areas. Appropriate building with good air ventilation and sunlight protected storage area is provided.

3.1.1.8 Security Control

In order to control security, Crisis Management Cell has been established with appropriate Standard Operating Procedures, Orders and Protocols that are being managed by Security Control Department.

3.1.1.9 Waste Effluent Control

A standard Effluent Treatment Plant (ETP) has been established to control and discharge of effluent. Liquid effluent is treated with appropriated chemicals to mitigate its adverse environmental properties before discharge. Pre and post treated effluent are tested in in-house and external labs to comply with SEQS.

3.1.1.10 Sludge Lagoons

Solid pulp is separated from liquid effluent and dried in vast lagoons and then disposed of as per regulatory standards through approved suppliers/contractor.

3.2 Hydrochloric Acid (Conc. 32% & Qty. 35,000 kgs per annum)

Hydrochloric Acid is procured from the approved supplier; the supplier's profile and performance are evaluated periodically and audited by Internal Audit teams as well as External Auditors of ISO 9001:2015 & ISO 14001:2015 certification bodies.

3.2.1 Use in Operations

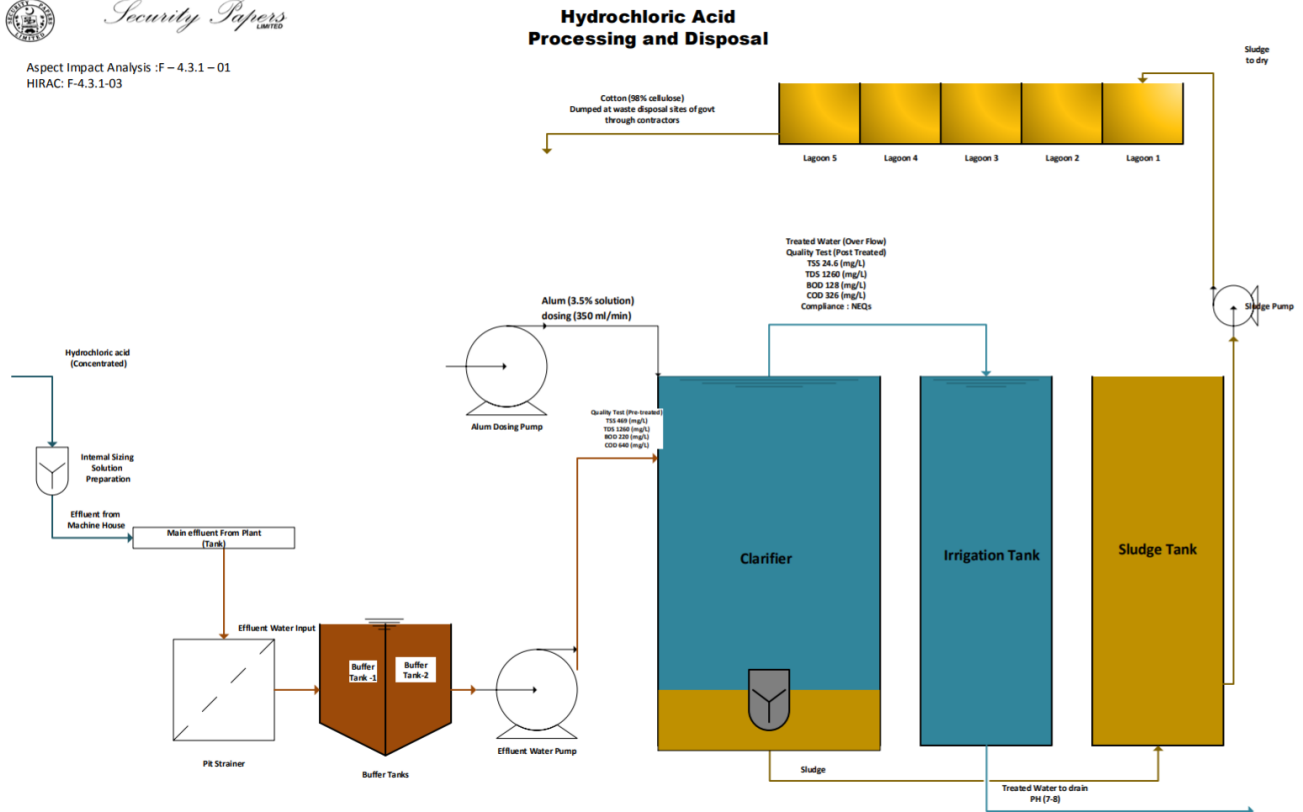
Technical Grade Hydrochloric Acid (32%) is used in paper sizing solution preparation process as per lay out attached:

3.2.1.1 Internal Sizing agent

HCl is used in internal paper sizing solution preparation, which then induced in security paper pulp for wet strength retention.

3.2.1.2 Quality Management

Quality Control/and Quality Assurance: In order to ensure Quality of Hydrochloric Acid (as raw material) and process parameters compliance, full equipped Laboratories and analysis facilities are available within factory. Both qualitative and quantitative analyses are performed by qualified personnel as per good lab practices using standard test methods, work instructions and standard operating procedures.



3.2.1.3 In process Inspection

During the process semi-finished product and processes are monitored periodically to control nonconformities and to comply standard specifications.

3.2.1.4 Safety of workers

A detailed Hazard Identification Risk Assessment and Control - HIRAC (F- 4.3.1-03) has been established and communicated to Section in charges. MSDS of Hydrochloric acid has been translated in Urdu language and communicated to respective workers and available at workplace for safety compliance.

3.2.1.5 Environment preservation

To comply with environmental risk management, detailed environmental aspect / impact analysis report (F-4.3.1-01) has been established and communicated to relevant persons and workplaces.

3.2.1.6 Evaluation of compliance obligation

In order to evaluate compliance obligation, a detailed legal register has been established with appropriated engineering and administrative controls to comply with Factories Act 2015, SEP Act 2014, Hazardous Substances Rules 2014, SMART rule 2014, SEQS etc. which are verified by external auditors from SGS Pakistan (Pvt.) Ltd.

3.2.1.7 Storage and preservations

Technical grade Hydrochloric acid (32%) is received in appropriate container and handled, transported and stored as per companies standard operating procedures, reflecting (ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018) Quality, Environment, & Safety Management Systems requirement respectively. MSDS is fully complied. Appropriated Safety signs, (e.g. NFPA diamond, Use of PPEs, environmental protection signs, etc) are placed, spill kits and secondary containments, are available at storage areas. Appropriate building with good air ventilation and sun light protected storage is provided.

3.2.1.8 Security Control

In order to control security, Crisis Management Cell has been established with appropriate Standard Operating Procedures, Orders and Protocols that are being managed by Security Control Department.

3.2.1.9 Waste Effluent Control

A standard Effluent Treatment Plant (ETP) has been established to control and discharge of effluent. Liquid effluent is treated with appropriated chemicals to mitigate its adverse environmental properties before discharge. Pre and post treated Effluent is tested in in-house and external labs to comply with SEQS.

3.2.1.10 Sludge Lagoons

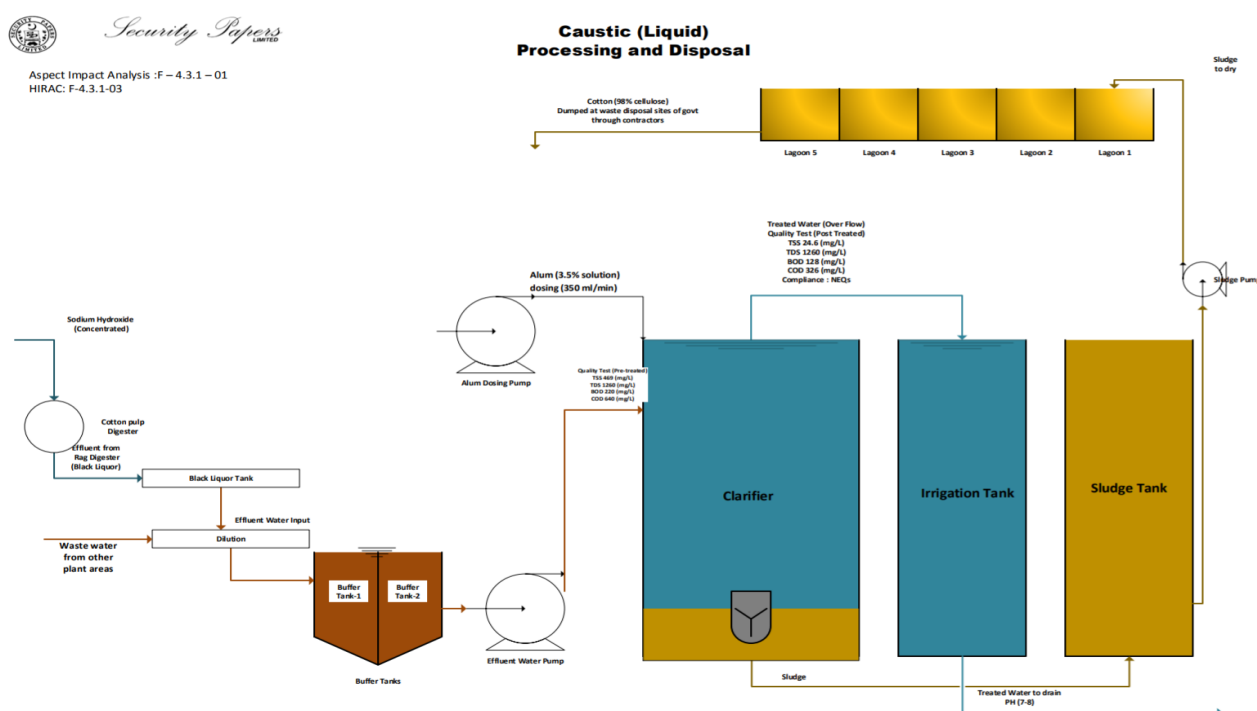
Solid pulp is separated from liquid effluent and dried in vast lagoons and then disposed of as per regulatory standards through approved suppliers/contractor.

3.3 Sodium Hydroxide (Conc. 47% & Qty. 170,000 kgs per anum)

Liquid Caustic Soda (Sodium Hydroxide 47% min) is procured from the approved supplier; the supplier's profile and performance are evaluated periodically and audited by Internal Auditors as well as External Auditors of (ISO 9001:2015 & 14001:2015) certification body.

3.3.1 Use in Operations:

Technical Grade Liquid Caustic Soda (Sodium Hydroxide 47% min) is used in raw cotton digesting (cooking) process as per lay out attached:



3.3.1.1 Cooking (digesting) Process

Liquid Caustic Soda (Sodium Hydroxide 47% min) is used for cooking process of raw cotton which then converted to liquor and drain in controlled discharge drain lines towards effluent treatment plant.

3.3.1.2 Quality Management

Quality Control/and Quality Assurance: In order to ensure Quality of Liquid Caustic Soda (as raw material) and process parameters compliance, full equipped Laboratories and analysis facilities are available within factory. Both qualitative and quantitative analyses are performed by qualified personnel as per Good lab practices using standard test methods, Work instructions and Standard Operating procedures.

3.3.1.3 In process Inspection

During the process semi-finished product and processes are monitored periodically to control nonconformities and to comply standard specifications.

3.3.1.4 Safety of workers

A detailed Hazard Identification Risk Assessment and Control - HIRAC (F- 4.3.1-03) has been established and communicated to Section Heads/Shift Supervisors. MSDS of Liquid Caustic Soda (Sodium Hydroxide 47% min) has been translated in Urdu language and communicated to respective workers and available at workplace for safety compliance.

3.3.1.5 Environment preservation

To comply with environmental risk management, detailed environmental aspect / impact analysis report (F-4.3.1-01) has been established and communicated to relevant persons and workplaces.

3.3.1.6 Evaluation of compliance obligation

In order to evaluate compliance obligation a detailed legal register has been established with appropriated engineering and administrative controls to comply with Factories Act 2015, SEP Act 2014, Hazardous Substances Rules 2014, SMART rule 2014, SEQS etc, which are verified by external auditors from certification body (SGS).

3.3.1.7 Storage and preservations

Technical grade Liquid Caustic Soda (Sodium Hydroxide 47% min) is received in appropriate container and handled, transported and stored as per companies standard operating procedures, reflecting (ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018) Quality, Environment, and Safety Management Systems requirement respectively. MSDS is fully complied. Appropriate Safety signs, (e.g. NFPA diamond, Use of PPEs, environmental protection signs, etc) are placed, spill kits and secondary containments, are available at storage areas.

Appropriate building with good air ventilation and sun light protected storage area is provided.

3.3.1.8 Security Control

In order to control security, Crisis Management Cell has been established with appropriate Standard Operating Procedures, Orders and Protocols that are being managed by Security Control Department.

3.3.1.9 Waste Effluent Control

A standard Effluent Treatment Plant (ETP) has been established to control and discharge of effluent. Liquid effluent is treated with appropriated chemicals to mitigate its adverse environmental properties before discharge. Pre and post treated effluent are tested in in-house and external labs to comply with SEQS.

3.3.1.10 Sludge Lagoons:

Solid pulp is separated from liquid effluent and dried in vast lagoons and then disposed of as per regulatory standards through approved suppliers/contractor.

3.4 General safety precautions

SPL ensures that the following safety precautions are conveyed to persons to whom the hazardous substances are sold or delivered:

- (a) carefully read and follow the instructions and safety precautions printed on the container;
- (b) when opening the container, wear protective clothing and equipment including helmet or cloth cap, safety spectacles or goggles, respirator or mask, rubber or plastic gloves, and work boots, as may be required;
- (c) avoid contact of the hazardous substance with exposed skin or eyes, and if such contact occurs, wash the exposed area immediately and consult a doctor;
- (d) avoid contaminating clothing, gloves and footwear with the hazardous substance, and if such contamination occurs, remove the clothing, gloves and footwear immediately and wash the same thoroughly before reuse;
- (e) do not eat, drink or smoke in the vicinity of hazardous substances.

3.5 Safety precautions for workers

SPL ensures that the following safety precautions are taken in respect of workers employed for handling hazardous substances:

- (a) No worker aged below eighteen years or over sixty years is being employed for any job involving physical handling of hazardous substances.
- (b) All workers are thoroughly trained in safety precautions for handling hazardous substances and are being supervised by qualified supervisors.
- (c) Protective clothing and equipment comprising helmet or cloth cap, safety spectacles or goggles, respirators or masks, rubber or plastic gloves and work-boots are made available for all workers who may be exposed to any hazardous substance, and no worker is permitted on job unless and until he is wearing such protective clothing and equipment.
- (d) Adequate supply of water is being made available to the workers for personal washing as well as for washing their protective clothing and equipment.
- (e) Protective clothing and equipment of the workers are washed and cleaned as often as may be required to ensure their efficacy.
- (f) No worker is permitted to eat, drink or smoke till he has removed his protective clothing and equipment, washed his hands and face, and left the place of work.
- (g) All fire-fighting, emergency and safety equipment are frequently checked and properly maintained.
- (h) First-aid medical facility equipped with required antidotes are available in the premises, supervised by trained staff under the supervision of qualified Medical Consultant.
- (i) Medical check-up of all workers shall be carried out at the time of employment and at least once a year thereafter by a certified Medical Consultant.
- (j) A record of every worker is being maintained containing, amongst other details, his name and address, his medical check-up history, and the hazardous substances handled by him.

3.6 Incident & Crisis Management through implementation of BCP Manual

SPL has developed a well-crafted Business Continuity Planning-BCP Manual to deal with unforeseen events and incidents through implementation of robust Incident and Crisis Management Plan (ICMP).

3.6.1 Objectives of ICMP

This manual provides organizational structures and guidance to management teams to enable the efficient management of incidents or crises, with the objective of:

- minimizing the overall negative impact of a given situation, and
- enabling a return to normality in the shortest possible time frame

3.6.2 Definition of Incident, Major Incident and Crisis

An Incident can be defined as any unplanned event which may result in damage, loss or other harm to any SPL asset, including staff on duty.

Any Major Incident can be defined as any unplanned event:

1. With the potential to impact business units operation and credibility or
2. Which poses economic, environment, safety, health, security or legal liability or
3. May or will require significant regional/global level resources to manage

Incidents and crises are not limited to internal company or even industry-related situations but may also include any external event, possibly beyond the direct influence or control of the company. Complete details are available in the Business Continuity Planning-BCP Manual.

Examples of major incidents and crises include:

Major chemical or toxic gas releases that encroach on public areas

- Larger plant explosions or fires that result in numerous casualties
- Natural disasters, e.g. earthquakes or flooding that affect SPL staff or property
- Adverse contact with the media, the public or other external agencies
- Epidemic diseases causing site or office isolation
- Social unrest causing cessation of operations
- Kidnapping or extortion
- Adverse security condition (terrorist act, political unrest, international conflict and workplace violence, etc)

- Product recalls (contamination, recall, tampering, adverse health effect)
- Operational disruption (supply chain disruption, manufacturing process failure or impairment)
- Transportation accident or distribution accidents
- Legal and regularity issues resulting in business disruption

It is the responsibility of the Chairman, BCP to declare a 'crisis' and activate the crisis management structure described in the Business Continuity Planning-BCP Manual in consultation with Chairman, Emergency Response Team.

3.7 Emergency Response Plan

The purpose of Emergency Response procedure is to provide an effective, pre-defined framework and process to enable SPL to respond to emergencies. Safety of human lives always remain the top most priority.

Emergency Response Plan is an action plan to handle an actual disaster situation, which includes the ways and means to eliminate, minimize or to avoid actual or potential hazards, losses and risks to Personnel, Plant, Equipment, and Environment. It also includes assignments of responsibilities, provision of necessary equipment and training to all employees of the organization.

Emergency Identification: An emergency situation exists when there is a condition that presents immediate danger to the lives and health of employees, contractors, visitors, and general public and also to the integrity of the surrounding environment. Some examples of emergency include, but not limited to:

- Fire
- Explosion
- Injury
- Environmental Damage (Spillage of toxic & flammable chemicals)
- Earthquake
- Flood
- Riots & Strikes
- Chemical Transportation Emergency
- Bomb threat

Emergency situations are classified into two categories and warrant specific type of responses per specific category of the incident:

1. Minor Emergency (internal/external)
2. Major Emergency (internal/external)

3.8 Occupational Health & Safety

Regarding Occupational Safety, the general objective is to minimize impacts to human health and to continuously improve safety performance. The management shall provide safe working conditions and avoid accidents by identification of hazards, by the assessment of risks and by the implementation of adequate prevention measures.

Occupational Safety includes all necessary tasks to identify hazards at SPL workplaces, to assess the respective risks and to implement necessary technical, organizational and personal preventive measures. Occupational Health & Safety is an integral part of SPL's daily business. This ensures the reduction of risks to an acceptable level.

Following areas are addressed:

- Hazard Assessment and Risk Assessment
- Hazard Communication
- Operating Procedures
- Plant Inspection and Audits
- Exposure Assessment and Control (Air and Noise Monitoring)
- Accident / Incident Reporting and Investigation
- Contractor Management and Construction Safety
- Work Permit Systems
- Safety Procedures and Best Practices
- Personal Protective Equipment

Performance Expectations/Current practices:

- To protect and promote the safety of all employees and contractor's workforce while working for SPL
- All workplace and task related hazards are systematically identified assessed and documented.
- Unsafe acts and conditions are reported, analyzed, and prevented
- Incidents and accidents are investigated and analyzed.
- Safe work practices are communicated to employees, all types of workforce as well as to contractors, suppliers, vendors, visitors etc.
- An online Permit to Work-PTW system for non-routine work is being implemented in true letter and spirit. Communications and trainings are imparted to all concerned Supervisors/nominated Departmental Coordinators.

3.10 SPL Management initiatives to Combat COVID-19

Outbreak of COVID-19 has affected the entire world. The corporate sector was however the worst affected. Due to lock down order by the Government, the movement of public transport and people were not allowed. This presented a great challenge for the Management to continue operations of the Plant. The Business Continuity Plan prepared by the Company was implemented to manage Plant operations.

Management took immediate preventive measures against the spread of pandemic COVID-19 by organizing awareness sessions by qualified Medical Consultant before the lock down period and arranged installation of sanitizing walk through tunnel, distribution of face masks and gloves, handwashing facility at entrance, disinfectant sprays and regular temperature checks before and during the shift timings.

Following is the pictorial glimpses of the initiatives during Covid-19 Pandemic:





Avoiding Hands using pedals for wash basins



**Body Temperature outside factory premise and
Searching Process at the time of entry**





Security Papers
LIMITED

Hazardous Substances Management Plan (HSMP)

**Security Papers Limited
(Factory)**
Jinnah Avenue, Malir Halt,
Karachi-75100, Pakistan

Arrival of Staff with Mask ON



Staff getting disinfected by passing Walkthrough Tunnel



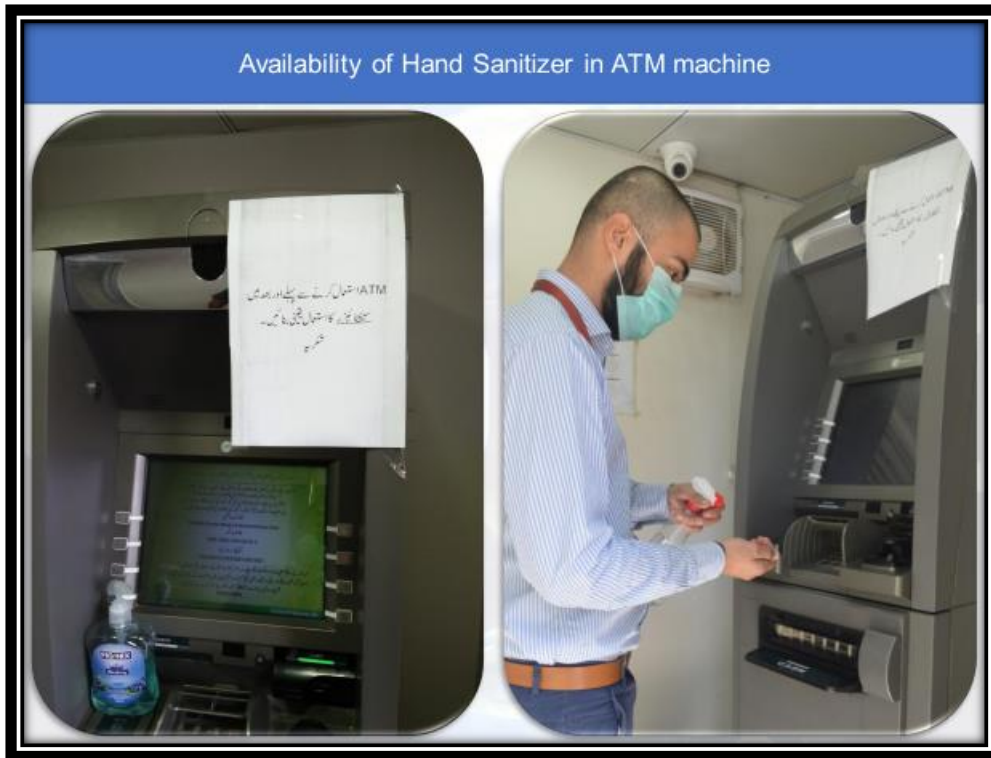


**Staff disinfecting himself through use of
Mist Pedestal Fans**



**Availability of Hand Sanitizers immediately at the time of
entrance**

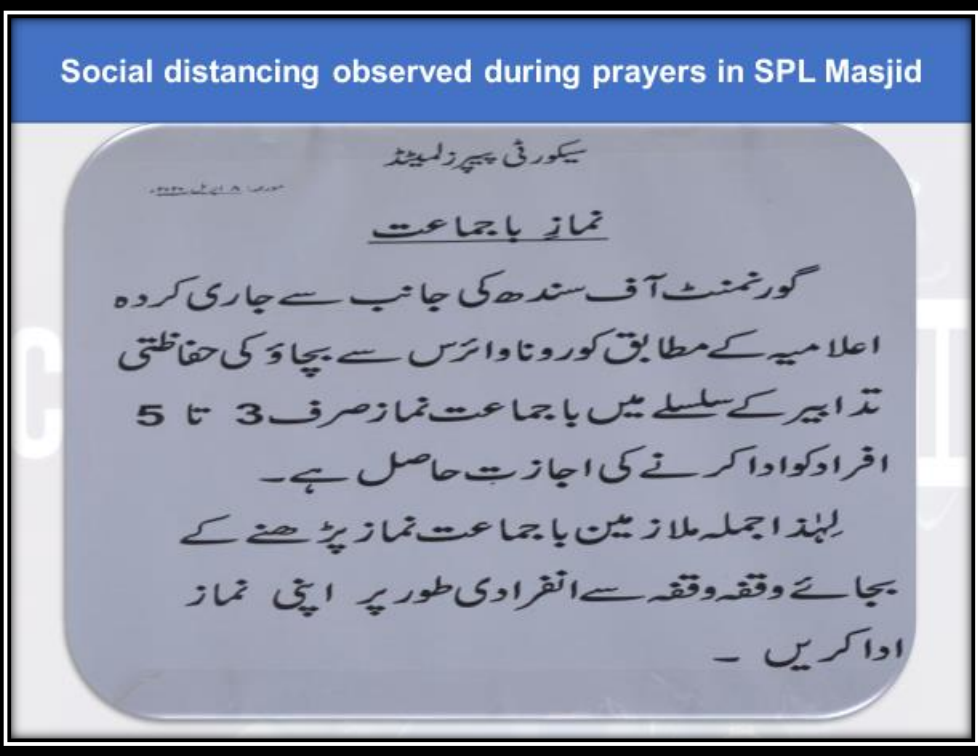








Social distancing observed during prayers in SPL Masjid

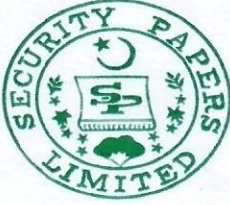


***Hazardous Substances
Management Plan (HSMP)***

**Security Papers Limited
(Factory)**
Jinnah Avenue, Malir Halt,
Karachi-75100, Pakistan

Annexures

-  ***Policies***
-  ***Environmental Testing Reports***



Security Papers
LIMITED

ISO 9001:2015, ISO 14001:2015
& ISO 45001:2018
Certified

Environmental Policy

Security Papers Limited is committed to work in an environment that ensures safe and healthy workplace for its workforce and minimizes any potential negative impact on the environment because of its products or operations.

The Management is responsible for safe operation of its manufacturing facilities in a manner that none of its stakeholders such as employees, neighboring communities, plant / equipment and environment are not endangered.

Our policy is to:

- a) Integrate consideration of environmental concerns and their impacts into our decision-making processes.
- b) Minimize our waste, reduce water and energy use and maximize the use of environmentally friendly products.
- c) Train and educate our workforce regarding environmental issues that may affect their work or have adverse impact on our products.

Our Management is committed to:

- a) Establish, implement, maintain and continually improve Environmental Management System in order to make its products and operations comply with all applicable environmental regulations.
- b) Ensure continual improvement in environmental sustainability through reduction of air and noise pollution, proper treatment of effluent, hazard free gas emissions and disposal of solid waste in a responsible manner.

Chief Executive Officer

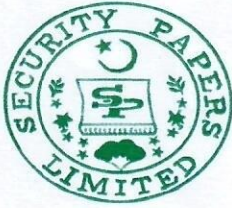
Date: 28.1.2021

**Registered Office &
Shares Department:**

Jinnah Avenue, Malir Halt, Karachi-75100
Ph: (92)-021-99248285 Fax No.: (92)-021-99248286. NTN: 0712033-8 STR No.02-04-4816-002-64

Factory:

Jinnah Avenue, Malir Halt, Karachi-75100, Ph.: (92)-021- 99248536-37, Fax. (92)-021-99248616.



Security Papers
LIMITED

ISO 9001:2015, ISO 14001:2015
& ISO 45001:2018
Certified

Quality Policy

Security Papers Limited is committed to provide highest quality products that conform to the requirements of its customers to exceed the customer satisfaction level.

The successful implementation of Quality Policy would be responsibility of all workforce as well as the management under the prudent guidance from the Board of Directors.

To achieve highest standards of operational excellence, the Company will adopt latest technologies whenever possible to remain top of the line security paper manufacturer.

A system of participative management will be encouraged and enforced so that every employee can contribute and work towards achievement of Company goals and targets. The Company will invest in human capital development by imparting relevant trainings and providing necessary supervision to ensure high quality performance at all levels.

Compliance of all regulatory requirements will be ensured and no compromise will be made for any deviations.

Chief Executive Officer

Date: 28.1.2021

**Registered Office &
Shares Department**
002-64

Jinnah Avenue, Malir Halt, Karachi-75100
Ph: (92)-021-9924828536-7 Fax No.: (92)-021-99248256 NTN: 0712033-8 STR No.02-04-4816-

Factory:

Jinnah Avenue, Malir Halt, Karachi-75100, Ph.: 99248536-7 Fax. 99248616, 99248538

Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 27-11-2020
Boiler Type: NA
Sample type: Boiler Emission Sampling

Site ID: **M/s Security Papers Ltd**
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/01

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	John Thompson WP-605	Natural Gas	7 TPH	43.1	103.5	ND	1	73.6	47.3
2	John Thompson WP-606	Natural Gas	7 TPH	28.9	98.4	ND	1	70.6	44.3
3	John Thompson WP-607	Natural Gas	7 TPH	22.9	87.9	ND	1	71.2	52.1

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

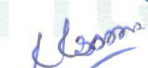
* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Boiler Emission results are well within guideline values set by SEQs.



 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.

Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 27-11-2020
Machine Type: Digester
Machine Model No: NA
Sample type: Digester Emission Sampling

Site ID: **M/s Security Papers Ltd**
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/02

EMISSION TEST REPORT

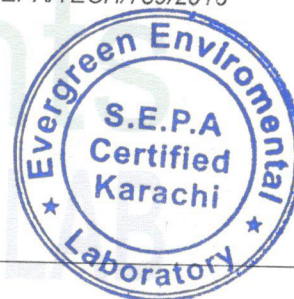
S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	Digester Line-01	Natural Gas	-	739	119	ND	1	71.9	42.4
2	Digester Line-02	Natural Gas	-	745	125	ND	1	72.4	43.9
3	Digester Line-03	Natural Gas	-	743	122	ND	1	72.1	43.2
4	Digester Line-04	Natural Gas	-	732	118	ND	1	71.1	44.2

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016
* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Digester Emission results are well within guideline values set by SEQs.



 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.

Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 27-11-2020
Machine Type: Incinerator
Machine Model No: NA
Sample type: Incinerator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/03

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	Incinerator	Natural Gas	-	266.9	245.3	ND	1	65.3	74.9

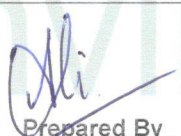
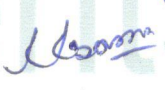
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Incinerator Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.

Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 27-11-2020
Sampling Duration: On the Spot.
Sample type: Vehicular Emission Sampling

Site ID: **M/s Security Papers Ltd**
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/05

VEHICULAR EMISSION TEST REPORT

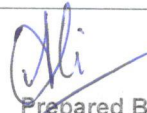
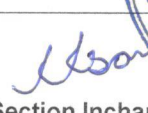
S. No.	Vehicle Details				Fuel Type	TEST METHOD		
						Gas Analyzer	Ringlemann Scale	Noise Meter
						TEST PARAMETERS		
						CO	Smoke	Noise
						SEQS LIMITS		
	Make /Model	Reg. No/ Serial No.	Type	Capacity		4.0 % For New Vehicles 6.0 % For 10 year or Older models	40% or 2 Ringleman Scale	75 dB(A)
RESULTS								
1	TOYOTA 60-8FD30	Frame No. 60FD30-12772	FORK LIFTER	3 Ton	Diesel	2.5	1	66.7
2	TOYOTA 60-8FD15	Frame No. 608FD18-11912	FORK LIFTER	2.5 Ton	Diesel	2.3	1	67.4
3	TCM FD6028	30G01987	FORK LIFTER	6 Ton	Diesel	3.5	1	69.7
4	Suzuki CS-8243 (Model 2009)	CS-8243	Ambulance		Petrol	1.8	1	66.4

❖ SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2014

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Vehicular Emission concentration is well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
--	---

The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 27-11-2020
Sample Type: Noise
Sample Duration: On the spot

Site ID: **M/s Security Papers Ltd**
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/04

EMISSION TEST REPORT

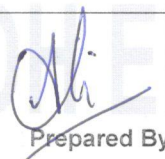
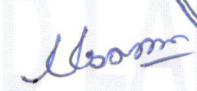
S. No.	Sampling Site Location	Min dB(A)	Max dB(A)	Average dB(A)	SEQS Standard dB(A)
1	Beater House	91.2	93.4	92.3	85
2	Refiners	93.5	96.1	94.8	
3	Generators	93.4	95.1	94.25	
4	Chiller A/C	73.6	75.1	74.35	

SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2014

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The noise levels are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
--	---

The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 27-11-2020
Generator Model No: JF600
Sample type: Generator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/06

EMISSION TEST REPORT

S. No.	PARAMETERS				CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS				mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS				800	400	1700	2	75	300
	SOURCE	FUEL TYPE	Serial No	LOAD	RESULTS					
1	JENBACHER	Natural Gas	5971091	1400 KW	1468.6	1732.5	ND	1	95.1	188.4
2	JENBACHER	Natural Gas	1237822	1400 KW	1752.7	2804.2	ND	1	92.4	194.5

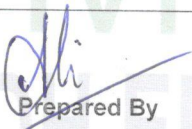
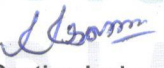
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Generator Emission results are not well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
--	---

The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 27-11-2020
Generator Model No: NA
Sample type: Generator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/07

EMISSION TEST REPORT

S. No	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	ONIS VISA	Diesel	250 KVA	166.1	215.6	78.3	1	74.8	88

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Generator Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
--	---

The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 27-11-2020
Date of Sample Received: 27-11-2020
Samples collected /send by: EGEL Representative
Sampling Location: Before Treatment
Sample type: Wastewater Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/08

ANALYTICAL TEST REPORT

S. No	Parameters	Results	SEQS Limits	Method Reference
1	Temperature °C	33.3	40	ASTM D 6764-02 (2007)
2	pH Value (acidity/basicity)	11.61	6-9	ASTM D 6764-02 (2007)
3	5-days Biochemical Oxygen Demand (BOD) (mg/l) at 20°C	239	80	HACH METHOD 1009
4	Chemical Oxygen Demand (COD) (mg/l)	1490	150	ASTM D 1252-00
5	Total Suspended Solids (TSS) (mg/l)	211	200	HACH, USA Method#8006
6	Total Dissolved Solids (TDS)(mg/l)	2839	3500	HACH Method#8006
7	Sulfide	0.133	1.0	US EPA Method 200.8

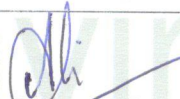
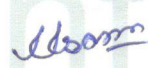
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: Not Detected

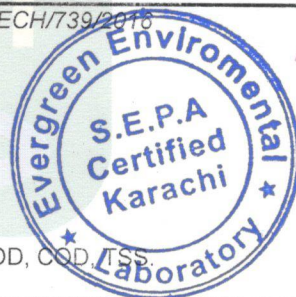
Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (before treatment) do not comply with SEQs limits for pH, BOD, COD, TSS.

 Prepared By	 Section Incharge (EGEL)
--	---

The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 27-11-2020
Date of Sample Received: 27-11-2020
Samples collected /send by: EGEL Representative
Sampling Location: After Treatment
Sample type: Wastewater Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. No.: 28371/EGEL/EHS/SPL/2021/09

ANALYTICAL TEST REPORT

S. No	Parameters	Results	SEQS Limits	Method Reference
1	Temperature °C	32.3	40	ASTM D 6764-02 (2007)
2	pH Value (acidity/basicity)	7.62	6-9	ASTM D 6764-02 (2007)
3	5-days Biochemical Oxygen Demand (BOD) (mg/l) at 20°C	69.8	80	HACH METHOD 1009
4	Chemical Oxygen Demand (COD) (mg/l)	148.4	150	ASTM D 1252-00
5	Total Suspended Solids (TSS) (mg/l)	48	200	HACH, USA Method#8006
6	Total Dissolved Solids (TDS)(mg/l)	2232	3500	HACH Method#8006
7	Sulfide	0.059	1.0	US EPA Method 200.8

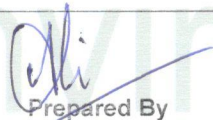
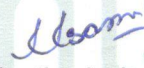
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: Not Detected

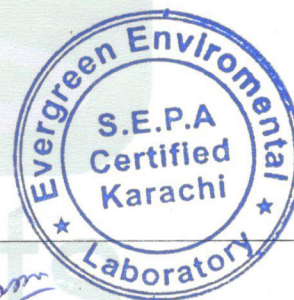
Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (after treatment) do comply with SEQs

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 27-11-2020
Date of Sample Received: 27-11-2020
Samples collected /send by: EGEL Representative
Sample type: Drinking Water Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/10

ANALYTICAL TEST REPORT

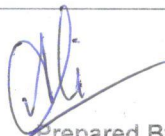
S.#	PARAMETERS	STANDARDS	UNITS	RESULTS	TEST METHOD
		SSDWQ - LIMITS			
1	pH value	6.5 – 8.5	SU	7.6	USEPA 150.1
2	Odour	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
3	Taste	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
4	Color	≤ 15	TCU	0.0	APHA-2020 B/C
5	Turbidity	< 5	NTU	0.0	APHA-2130 B
6	Total Dissolved Solids (TDS)	< 1000	mg/L	157	Hach 8160
7	Total Hardness as CaCO ₃	< 500	mg/L	74	EDTA Titration, Hach-8213
8	Fluoride (as F)	≤ 1.5	mg/L	0.99	USEPA 340.1
9	Chloride (as Cl ⁻)	< 250	mg/L	42	Hach 8206
10	Nitrate (NO ₃)	≤ 50	mg/L	1.12	Hach -8039
11	Nitrite (NO ₂)	≤ 3	mg/L	0.005	Hach - 8153
12	Cyanide (as CN ⁻) total	≤ 0.05	mg/L	BDL	Hach 8027
13	Phenolic Compound as (Phenols)	-	mg/L	BDL	USEPA-420.1
14	Aluminum (Al)	≤ 0.2	mg/L	BDL	APHA-3111 D
15	Antimony (Sb)	≤ 0.005	mg/L	BDL	APHA-3111 B
16	Arsenic	≤ 0.05	mg/L	BDL	APHA-3120 B
17	Cadmium	0.01	mg/L	BDL	ASTM D-3557
18	Chromium, Total	≤ 0.05	mg/L	BDL	ASTM D-1687
19	Copper	2	mg/L	0.07	Hach 8506
20	Lead	≤ 0.05	mg/L	BDL	ASTM D-3559
21	Mercury	≤ 0.001	mg/L	BDL	ASTM D-3223
22	Selenium	0.01	mg/L	BDL	ASTM D-3859
23	Nickel	≤ 0.02	mg/L	BDL	ASTM D-1886
24	Boron	0.3	mg/L	BDL	ASTM D-3082
25	Residual Chlorine	0.2-0.5 at Consumer End	mg/L	ND	Hach - 8167
26	Zinc	5.0	mg/L	0.06	USEPA 3500 Zn B
27	Manganese	≤ 0.5	mg/L	BDL	Hach 8034
28	Barium	0.7	mg/L	BDL	Hach 8014
29	Pesticides	-	mg/l	BDL	USEPA 8081-A
30	Polynuclear Aromatic Hydrocarbon (as PAH)	-	g/L	ND	GC-APHA-6440
31	Alpha Emitters	0.1	Bq/l	BDL	Detector (PalmRAD 907)
32	Beta Emitters	1.0	Bq/l	BDL	Detector PalmRAD 907)
MICROBIOLOGICAL ANALYSIS REPORT					
33	Total Coliform	0cfu/100ml	cfu	00	APHA-SM9221B
34	Fecal Coliform	0cfu/100ml	cfu	00	APHA-SM9221F
35	Escherichia Coli(E-Coli)	0cfu/100ml	cfu	00	APHA-SM9221F

SSDWQ=Sindh Standard for Drinking Water Quality
USEPA=United State Environmental Protection Agency

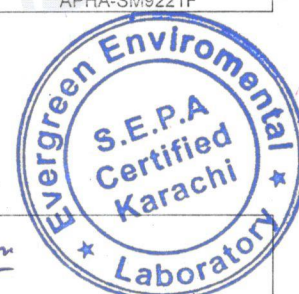
Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Drinking Water Sampling results are well within guideline values set by SEQS.

Prepared By  Section Incharge (EGEL)

The Analyses based on sample (s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used



Date: 07-12-2020

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 27-11-2020
Date of Sample Received: 27-11-2020
Samples collected /send by: EGEL Representative
Sample type: Wastewater (After Treatment)

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/10

ANALYTICAL TEST REPORT

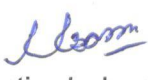
S. No.	Parameter	Into Inland Waters	Into Sewage Treatment	Into Sea	unit	Result
1	Temperature or Temp. increase	40<3	40<3	40<3	°C	32.3
2	pH value (H ⁺)	6-9	6-9	6-9		7.62
3	Biological Oxygen Demand (BOD) ₅ at 20 °C	80	250	80	mg/l	69.8
4	Chemical Oxygen Demand (COD) _{Cr}	150	400	400	mg/l	148.4
5	Total Suspended Solids (TSS)	200	400	200	mg/l	48
6	Total Dissolved Solids (TDS)	3500	3500	3500	mg/l	2232
7	Oil and Grease	10	10	10	mg/l	6.41
8	Phenolic Compounds (as Phenol)	0.1	0.3	0.3	mg/l	0.039
9	Chloride (as Cl ⁻)	1000	1000	SC	mg/l	203.2
10	Fluoride (as F ⁻)	10	10	10	mg/l	0.211
11	Cyanide (as CN ⁻)total	1.0	1.0	1.0	mg/l	0.01
12	An-ionic detergents (as MBAS)	20	20	20	mg/l	0.02
13	Sulphate (SO ₄ ²⁻)	600	1000	SC	mg/l	119
14	Sulphide (S ²⁻)	1.0	1.0	1.0	mg/l	0.059
15	Ammonia (NH ₃)	40	40	40	mg/l	15.3
16	Pesticides	0.15	0.15	0.15	mg/l	BDL
17	Cadmium	0.1	0.1	0.1	mg/l	0.0152
18	Chromium (trivalent and hexavalent)	1.0	1.0	1.0	mg/l	0.0223
19	Copper	1.0	1.0	1.0	mg/l	0.6374
20	Lead	0.5	0.5	0.5	mg/l	BDL
21	Mercury	0.01	0.01	0.01	mg/l	BDL
22	Selenium	0.5	0.5	0.5	mg/l	BDL
23	Nickel	1.0	1.0	1.0	mg/l	0.8730
24	Silver	1.0	1.0	1.0	mg/l	0.231
25	Total toxic metals	2.0	2.0	2.0	mg/l	1.93
26	Zinc	5.0	5.0	5.0	mg/l	0.182
27	Arsenic	1.0	1.0	1.0	mg/l	BDL
28	Barium	1.5	1.5	1.5	mg/l	0.091
29	Iron	8.0	8.0	8.0	mg/l	4.37
30	Manganese	1.5	1.5	1.5	mg/l	1.054
31	Boron	6.0	6.0	6.0	mg/l	0.63
32	Chlorine	1.0	1.0	1.0	mg/l	0.019

BDL: Below Detection Limits

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (after treatment) do comply with SEQS

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on sample (s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used





Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 13-01-2021
Boiler Type: NA
Sample type: Boiler Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Ref. No.: 28371/EGEL/EHS/SPL/2021/12

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	John Thompson WP-605	Natural Gas	7 TPH	102.3	163.4	ND	1	71.6	63.1
2	John Thompson WP-606	Natural Gas	7 TPH	98.4	155.3	ND	1	73.3	66.8
3	John Thompson WP-607	Natural Gas	7 TPH	128.8	166.1	ND	1	72.3	60.4

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Boiler Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 13-01-2021
Machine Type: Digester
Machine Model No: NA
Sample type: Digester Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/13

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	Digester Line-01	Natural Gas	-	742	132	ND	1	71.1	58.1
2	Digester Line-02	Natural Gas	-	728	188	ND	1	72.6	68.4
3	Digester Line-03	Natural Gas	-	761	152	ND	1	73.3	55.9
4	Digester Line-04	Natural Gas	-	732	196	ND	1	73.1	59.7

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Digester Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 13-01-2021
Machine Type: Incinerator
Machine Model No: NA
Sample type: Incinerator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/14

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	Incinerator	Natural Gas	-	258.3	296.3	ND	1	68.4	59.3

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Incinerator Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 13-01-2021
Sample Type: Noise
Sample Duration: On the spot

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/15

EMISSION TEST REPORT

S. No.	Sampling Site Location	Min dB(A)	Max dB(A)	Average dB(A)	SEQS Standard dB(A)
1	Beater House	89.1	92.4	91.5	85
2	Refiners	92.6	95.6	93.6	
3	Generators	92.4	96.7	94.8	
4	Chiller A/C	72.9	74.6	73.5	

SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2014

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The noise levels are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 13-01-2021
Sampling Duration: On the Spot.
Sample type: Vehicular Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/16

VEHICULAR EMISSION TEST REPORT

S. No.	Vehicle Details				Fuel Type	TEST METHOD		
						Gas Analyzer	Ringlemann Scale	Noise Meter
	TEST PARAMETERS							
	CO	Smoke	Noise					
	SEQS LIMITS							
	4.0 % For New Vehicles 6.0 % For 10 year or Older models	40% or 2 Ringleman Scale	75 dB(A)					
RESULTS								
1	TOYOTA 60-8FD30	Frame No. 60FD30-12772	FORK LIFTER	3 Ton	Diesel	2.3	1	65.7
2	TOYOTA 60-8FD15	Frame No. 608FD18-11912	FORK LIFTER	2.5 Ton	Diesel	1.5	1	66.5
3	TCM FD6028	30G01987	FORK LIFTER	6 Ton	Diesel	1.8	1	64.9
4	Suzuki CS-8243 (Model 2009)	CS-8243	Ambulance		Petrol	1.1	1	58.7

❖ SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2014

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Vehicular Emission concentration is well within guideline values set by SEQS.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 13-01-2021
Generator Model No: JF600
Sample type: Generator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/17

EMISSION TEST REPORT

S. No.	PARAMETERS				CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS				mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS				800	400	1700	2	75	300
	SOURCE	FUEL TYPE	Serial No	LOAD	RESULTS					
1	JENBACHER	Natural Gas	5971091	1400 KW	684.1	374.2	ND	1	73.7	135.2
2	JENBACHER	Natural Gas	1237822	1400 KW	752.6	342.5	ND	1	73.1	124.5

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Generator Emission results are not well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

EPA Certified Lab
EPA/LAB/Certificate-16/2020

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 13-01-2021
Generator Model No: NA
Sample type: Generator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/18

EMISSION TEST REPORT

S. No	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	ONIS VISA	Diesel	250 KVA	652	296.3	ND	1	74.2	652

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Generator Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
--	---

The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 13-01-2021
Date of Sample Received: 13-01-2021
Samples collected /send by: EGEL Representative
Sampling Location: Before Treatment
Sample type: Wastewater Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/19

ANALYTICAL TEST REPORT

S. No	Parameters	Results	SEQS Limits	Method Reference
1	Temperature °C	30.1	40	ASTM D 6764-02 (2007)
2	pH Value (acidity/basicity)	12.3	6-9	ASTM D 6764-02 (2007)
3	5-days Biochemical Oxygen Demand (BOD) (mg/l) at 20°C	248.9	80	HACH METHOD 1009
4	Chemical Oxygen Demand (COD) (mg/l)	455	150	ASTM D 1252-00
5	Total Suspended Solids (TSS) (mg/l)	198	200	HACH, USA Method#8006
6	Total Dissolved Solids (TDS)(mg/l)	2456	3500	HACH Method#8006
7	Sulfide	0.142	1.0	US EPA Method 200.8

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: Not Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (before treatment) do not comply with SEQs limits for pH, BOD, COD, TSS.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 13-01-2021
Date of Sample Received: 13-01-2021
Samples collected /send by: EGEL Representative
Sampling Location: After Treatment
Sample type: Wastewater Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/20

ANALYTICAL TEST REPORT

S. No	Parameters	Results	SEQS Limits	Method Reference
1	Temperature °C	31.5	40	ASTM D 6764-02 (2007)
2	pH Value (acidity/basicity)	7.8	6-9	ASTM D 6764-02 (2007)
3	5-days Biochemical Oxygen Demand (BOD) (mg/l) at 20°C	71.2	80	HACH METHOD 1009
4	Chemical Oxygen Demand (COD) (mg/l)	137.5	150	ASTM D 1252-00
5	Total Suspended Solids (TSS) (mg/l)	68.2	200	HACH, USA Method#8006
6	Total Dissolved Solids (TDS)(mg/l)	2185	3500	HACH Method#8006
7	Sulfide	0.055	1.0	US EPA Method 200.8

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: Not Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (after treatment) do comply with SEQs

 Prepared By	 Section Incharge (EGEL)
-----------------	--------------------------------

The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 13-01-2021
Date of Sample Received: 13-01-2021
Samples collected / send by: EGEL Representative
Sample type: Drinking Water Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/21

ANALYTICAL TEST REPORT

S.#	PARAMETERS	STANDARDS SSDWQ - LIMITS	UNITS	RESULTS	TEST METHOD
1	pH value	6.5 - 8.5	SU	7.6	USEPA 150.1
2	Odour	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
3	Taste	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
4	Color	≤ 15	TCU	0.0	APHA-2020 B/C
5	Turbidity	≤ 5	NTU	0.0	APHA-2130 B
6	Total Dissolved Solids (TDS)	≤ 1000	mg/L	157	Hach 8160
7	Total Hardness as CaCO ₃	≤ 500	mg/L	74	EDTA Titration Hach-8213
8	Fluoride (as F)	≤ 1.5	mg/L	0.99	USEPA 340.1
9	Chloride (as Cl)	≤ 250	mg/L	42	Hach 8206
10	Nitrate (NO ₃)	≤ 50	mg/L	1.12	Hach -8039
11	Nitrite (NO ₂)	≤ 3	mg/L	0.005	Hach - 8153
12	Cyanide (as CN-) total	≤ 0.05	mg/L	BDL	Hach 8027
13	Phenolic Compound as (Phenols)	-	mg/L	BDL	USEPA-420.1
14	Aluminum (Al)	≤ 0.2	mg/L	BDL	APHA-3111 D
15	Antimony (Sb)	≤ 0.005	mg/L	BDL	APHA-3111 B
16	Arsenic	≤ 0.05	mg/L	BDL	APHA-3120 B
17	Cadmium	0.01	mg/L	BDL	ASTM D-3557
18	Chromium, Total	≤ 0.05	mg/L	BDL	ASTM D-1687
19	Copper	2	mg/L	0.07	Hach 8506
20	Lead	≤ 0.05	mg/L	BDL	ASTM D-3559
21	Mercury	≤ 0.001	mg/L	BDL	ASTM D-3223
22	Selenium	0.01	mg/L	BDL	ASTM D-3859
23	Nickel	≤ 0.02	mg/L	BDL	ASTM D-1886
24	Boron	0.3	mg/L	BDL	ASTM D-3082
25	Residual Chlorine	0.2-0.5 at Consumer End	mg/L	ND	Hach - 8167
26	Zinc	5.0	mg/L	0.06	USEPA 3500 Zn B
27	Manganese	≤ 0.5	mg/L	BDL	Hach 8034
28	Barium	0.7	mg/L	BDL	Hach 8014
29	Pesticides	-	mg/l	BDL	USEPA 8081-A
30	Polynuclear Aromatic Hydrocarbon (as PAH)	-	g/L	ND	GC-APHA-6440
31	Alpha Emitters	0.1	Bq/l	BDL	Detector (PalmRAD 907)
32	Beta Emitters	1.0	Bq/l	BDL	Detector PalmRAD 907)
MICROBIOLOGICAL ANALYSIS REPORT					
33	Total Coliform	0cfu/100ml	cfu	00	APHA-SM9221B
34	Fecal Coliform	0cfu/100ml	cfu	00	APHA-SM9221F
35	Escherichia Coli(E-Coli)	0cfu/100ml	cfu	00	APHA-SM9221F

SSDWQ=Sindh Standard for Drinking Water Quality
USEPA=United State Environmental Protection Agency

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Drinking Water Sampling results are well within guideline values set by SEQS.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on sample (s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used





Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/SPP/2021/018

Date: 21-01-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 13-01-2021
Date of Sample Received: 13-01-2021
Samples collected /send by: EGEL Representative
Sample type: Wastewater (After Treatment)

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/22

ANALYTICAL TEST REPORT

S. No.	Parameter	Into Inland Waters	Into Sewage Treatment	Into Sea	unit	Result
1	Temperature or Temp. increase	40<3	40<3	40<3	°C	31.5
2	pH value (H ⁺)	6-9	6-9	6-9		7.8
3	Biological Oxygen Demand (BOD) ₅ at 20 °C	80	250	80	mg/l	71.2
4	Chemical Oxygen Demand (COD) _{Cr}	150	400	400	mg/l	137.5
5	Total Suspended Solids (TSS)	200	400	200	mg/l	68.2
6	Total Dissolved Solids (TDS)	3500	3500	3500	mg/l	2185
7	Oil and Grease	10	10	10	mg/l	6.23
8	Phenolic Compounds (as Phenol)	0.1	0.3	0.3	mg/l	0.036
9	Chloride (as Cl ⁻)	1000	1000	SC	mg/l	211.1
10	Fluoride (as F ⁻)	10	10	10	mg/l	0.223
11	Cyanide (as CN ⁻) total	1.0	1.0	1.0	mg/l	0.02
12	An-ionic detergents (as MBAS)	20	20	20	mg/l	0.02
13	Sulphate (SO ₄ ²⁻)	600	1000	SC	mg/l	121
14	Sulphide (S ²⁻)	1.0	1.0	1.0	mg/l	0.055
15	Ammonia (NH ₃)	40	40	40	mg/l	14.8
16	Pesticides	0.15	0.15	0.15	mg/l	BDL
17	Cadmium	0.1	0.1	0.1	mg/l	0.0151
18	Chromium (trivalent and hexavalent)	1.0	1.0	1.0	mg/l	0.0227
19	Copper	1.0	1.0	1.0	mg/l	0.6461
20	Lead	0.5	0.5	0.5	mg/l	BDL
21	Mercury	0.01	0.01	0.01	mg/l	BDL
22	Selenium	0.5	0.5	0.5	mg/l	BDL
23	Nickel	1.0	1.0	1.0	mg/l	0.855
24	Silver	1.0	1.0	1.0	mg/l	0.238
25	Total toxic metals	2.0	2.0	2.0	mg/l	1.88
26	Zinc	5.0	5.0	5.0	mg/l	0.178
27	Arsenic	1.0	1.0	1.0	mg/l	BDL
28	Barium	1.5	1.5	1.5	mg/l	0.092
29	Iron	8.0	8.0	8.0	mg/l	4.22
30	Manganese	1.5	1.5	1.5	mg/l	1.048
31	Boron	6.0	6.0	6.0	mg/l	0.59
32	Chlorine	1.0	1.0	1.0	mg/l	0.018

BDL: Below Detection Limits

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (after treatment) do comply with SEQS

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on sample (s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 26-03-2021
Boiler Type: NA
Sample type: Boiler Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/031

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	John Thompson WP-605	Natural Gas	7 TPH	105	285.3	ND	1	72.9	65.3
2	John Thompson WP-606	Natural Gas	7 TPH	118.6	296.7	ND	1	73.5	68.1
3	John Thompson WP-607	Natural Gas	7 TPH	103	274.3	ND	1	74.2	59.7

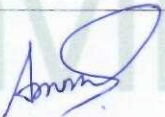
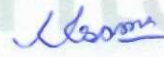
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Boiler Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

Environments

Ref: 10485/EGEL/EHS/2021/011

Date: 03-04-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 26-03-2021
Machine Type: Digester
Machine Model No: NA
Sample type: Digester Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/032

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	Digester Line-01	Natural Gas	-	728	242	ND	1	72.1	42.4
2	Digester Line-02	Natural Gas	-	715	263	ND	1	73.6	43.9
3	Digester Line-03	Natural Gas	-	728	228	ND	1	73.8	43.2
4	Digester Line-04	Natural Gas	-	742	232	ND	1	74.9	44.2

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Digester Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 26-03-2021
Machine Type: Incinerator
Machine Model No: NA
Sample type: Incinerator Emission Sampling

Site ID: **M/s Security Papers Ltd**
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Ref. No.: 28371/EGEL/EHS/SPL/2021/033

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	Incinerator	Natural Gas	-	412.5	314.5	ND	1	68.5	79.5

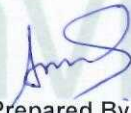
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Incinerator Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

Ref: 10405/EGEL/EHS/2021/011

Date: 03-04-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 26-03-2021
Sample Type: Noise
Sample Duration: On the spot

Site ID: **M/s Security Papers Ltd**
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/034

EMISSION TEST REPORT

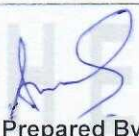
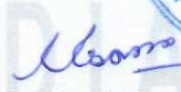
S. No.	Sampling Site Location	Min dB(A)	Max dB(A)	Average dB(A)	SEQS Standard dB(A)
1	Beater House	85.9	89.3	87.6	85
2	Refiners	88.7	90.2	89.45	
3	Generators	98.6	99.5	99.05	
4	Chiller A/C	72.8	75.6	74.2	

SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2014

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The noise levels are not well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

Ref: 10405/EGEL/EHS/2021/011

Date: 03-04-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 26-03-2021
Sampling Duration: On the Spot.
Sample type: Vehicular Emission Sampling

Site ID: **M/s Security Papers Ltd**
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/035

VEHICULAR EMISSION TEST REPORT

S. No.	Vehicle Details				Fuel Type	TEST METHOD		
						Gas Analyzer	Ringlemann Scale	Noise Meter
						TEST PARAMETERS		
						CO	Smoke	Noise
						SEQS LIMITS		
Make /Model	Reg. No/ Serial No.	Type	Capacity			4.0 % For New Vehicles 6.0 % For 10 year or Older models	40% or 2 Ringleman Scale	75 dB(A)
RESULTS								
1	TOYOTA 60-8FD30	Frame No. 60FD30-12772	FORK LIFTER	3 Ton	Diesel	1.7	1	68.4
2	TOYOTA 60-8FD15	Frame No. 608FD18-11912	FORK LIFTER	2.5 Ton	Diesel	2.1	1	62.9
3	TCM FD6028	30G01987	FORK LIFTER	6 Ton	Diesel	1.4	1	66.7
4	Suzuki CS-8243 (Model 2009)	CS-8243	Ambulance		Petrol	1.5	1	59.3

❖ SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2014

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Vehicular Emission concentration is well within guideline values set by SEQs.

Prepared By	Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Evergreen Environmental Laboratory

Ref: 10485/EGEL/EHS/2021/011

Date: 03-04-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 26-03-2021
Generator Model No: JF600
Sample type: Generator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/036

EMISSION TEST REPORT

S. No.	PARAMETERS				CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS				mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS				800	400	1700	2	75	300
	SOURCE	FUEL TYPE	Serial No	LOAD	RESULTS					
1	JENBACHER	Natural Gas	5971091	1400 KW	1532.1	1695.2	ND	1	93.6	163.4
2	JENBACHER	Natural Gas	1237822	1400 KW	1695.1	2153.8	ND	1	93.4	185.9

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Generator Emission results are not well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

Ref: 10405/EGEL/EHS/2021/011

Date: 03-04-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 26-03-2021
Generator Model No: NA
Sample type: Generator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/037

EMISSION TEST REPORT

S. No	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	ONIS VISA	Diesel	250 KVA	205.3	396.4	98.3	1	74.1	78.6

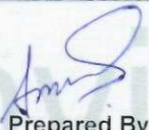
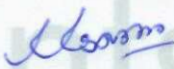
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Generator Emission results are well within guideline values set by SEQs.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Evergreen Environmental Laboratory

Ref: 10405/EGEL/EHS/2021/011

Date: 03-04-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 26-03-2021
Date of Sample Received: 26-03-2021
Samples collected /send by: EGEL Representative
Sampling Location: Before Treatment
Sample type: Wastewater Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/038

ANALYTICAL TEST REPORT

S. No	Parameters	Results	SEQS Limits	Method Reference
1	Temperature °C	34.1	40	ASTM D 6764-02 (2007)
2	pH Value (acidity/basicity)	11.78	6-9	ASTM D 6764-02 (2007)
3	5-days Biochemical Oxygen Demand (BOD) (mg/l) at 20°C	244	80	HACH METHOD 1009
4	Chemical Oxygen Demand (COD) (mg/l)	1488	150	ASTM D 1252-00
5	Total Suspended Solids (TSS) (mg/l)	219	200	HACH, USA Method#8006
6	Total Dissolved Solids (TDS)(mg/l)	2844	3500	HACH Method#8006
7	Sulfide	0.138	1.0	US EPA Method 200.8

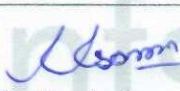
* SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: Not Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (before treatment) do not comply with SEQS limits for pH, BOD, COD, TSS.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 26-03-2021
Date of Sample Received: 26-03-2021
Samples collected /send by: EGEL Representative
Sampling Location: After Treatment
Sample type: Wastewater Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/039

ANALYTICAL TEST REPORT

S. No	Parameters	Results	SEQS Limits	Method Reference
1	Temperature °C	32.4	40	ASTM D 6764-02 (2007)
2	pH Value (acidity/basicity)	7.78	6-9	ASTM D 6764-02 (2007)
3	5-days Biochemical Oxygen Demand (BOD) (mg/l) at 20°C	65.6	80	HACH METHOD 1009
4	Chemical Oxygen Demand (COD) (mg/l)	144.1	150	ASTM D 1252-00
5	Total Suspended Solids (TSS) (mg/l)	45	200	HACH, USA Method#8006
6	Total Dissolved Solids (TDS)(mg/l)	2229	3500	HACH Method#8006
7	Sulfide	0.048	1.0	US EPA Method 200.8

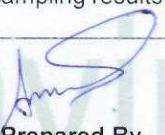
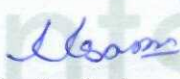
* SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: Not Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (after treatment) do comply with SEQS

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Report to: M/s EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 26-03-2021
Date of Sample Received: 26-03-2021
Samples collected /send by: EGEL Representative
Sample type: Drinking Water Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/040

ANALYTICAL TEST REPORT

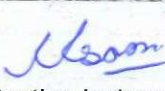
S.#	PARAMETERS	STANDARDS SSDWQ - LIMITS	UNITS	RESULTS	TEST METHOD
1	pH value	6.5 - 8.5	SU	7.0	USEPA 150.1
2	Odour	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
3	Taste	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
4	Color	≤ 15	TCU	0.0	APHA-2020 B/C
5	Turbidity	< 5	NTU	0.0	APHA-2130 B
6	Total Dissolved Solids (TDS)	< 1000	mg/L	166	Hach 8160
7	Total Hardness as CaCO ₃	< 500	mg/L	85	EDTA Titration Hach-8213
8	Fluoride (as F ⁻)	≤ 1.5	mg/L	0.94	USEPA 340.1
9	Chloride (as Cl ⁻)	< 250	mg/L	48	Hach 8206
10	Nitrate (NO ₃ ⁻)	≤ 50	mg/L	1.23	Hach -8039
11	Nitrite (NO ₂ ⁻)	≤ 3	mg/L	0.008	Hach - 8153
12	Cyanide (as CN ⁻) total	≤ 0.05	mg/L	BDL	Hach 8027
13	Phenolic Compound as (Phenols)	-	mg/L	BDL	USEPA-420.1
14	Aluminum (Al)	≤ 0.2	mg/L	BDL	APHA-3111 D
15	Antimony (Sb)	≤ 0.005	mg/L	BDL	APHA-3111 B
16	Arsenic	≤ 0.05	mg/L	BDL	APHA-3120 B
17	Cadmium	0.01	mg/L	BDL	ASTM D-3557
18	Chromium, Total	≤ 0.05	mg/L	BDL	ASTM D-1687
19	Copper	2	mg/L	0.05	Hach 8506
20	Lead	≤ 0.05	mg/L	BDL	ASTM D-3559
21	Mercury	≤ 0.001	mg/L	BDL	ASTM D-3223
22	Selenium	0.01	mg/L	BDL	ASTM D-3859
23	Nickel	≤ 0.02	mg/L	BDL	ASTM D-1886
24	Boron	0.3	mg/L	BDL	ASTM D-3092
25	Residual Chlorine	0.2-0.5 at Consumer End	mg/L	ND	Hach - 8167
26	Zinc	5.0	mg/L	0.05	USEPA 3500 Zn B
27	Manganese	≤ 0.5	mg/L	BDL	Hach 8034
28	Barium	0.7	mg/L	BDL	Hach 8014
29	Pesticides	-	mg/L	BDL	USEPA 8081-A
30	Polynuclear Aromatic Hydrocarbon (as PAH)	-	g/L	ND	GC-APHA-6440
31	Alpha Emitters	0.1	Bq/l	BDL	Detector (PalmRAD 907)
32	Beta Emitters	1.0	Bq/l	BDL	Detector PalmRAD 907)
MICROBIOLOGICAL ANALYSIS REPORT					
33	Total Coliform	0cfu/100ml	cfu	00	APHA-SM9221B
34	Fecal Coliform	0cfu/100ml	cfu	00	APHA-SM9221F
35	Escherichia Coli(E-Coli)	0cfu/100ml	cfu	00	APHA-SM9221F

SSDWQ=Sindh Standard for Drinking Water Quality
USEPA=United State Environmental Protection Agency

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Drinking Water Sampling results are well within guideline values set by SEQS.

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on sample (s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used





Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/2021/011

Date: 03-04-2021

Report to: M/s EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 26-03-2021
Date of Sample Received: 26-03-2021
Samples collected /send by: EGEL Representative
Sampling Location: After Treatment
Sample type: Wastewater Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Ref. No.: 28371/EGEL/EHS/SPL/2021/041

ANALYTICAL TEST REPORT

S. No.	Parameter	Into Inland Waters	Into Sewage Treatment	Into Sea	unit	Result
1	Temperature or Temp. increase	40<3	40<3	40<3	°C	32.4
2	pH value (H ⁺)	6-9	6-9	6-9		7.78
3	Biological Oxygen Demand (BOD) ₅ at 20 °C	80	250	80	mg/l	65.6
4	Chemical Oxygen Demand (COD) _{Cr}	150	400	400	mg/l	144.1
5	Total Suspended Solids (TSS)	200	400	200	mg/l	45
6	Total Dissolved Solids (TDS)	3500	3500	3500	mg/l	2229
7	Oil and Grease	10	10	10	mg/l	6.41
8	Phenolic Compounds (as Phenol)	0.1	0.3	0.3	mg/l	0.039
9	Chloride (as Cl ⁻)	1000	1000	SC	mg/l	203.2
10	Fluoride (as F ⁻)	10	10	10	mg/l	0.211
11	Cyanide (as CN ⁻)total	1.0	1.0	1.0	mg/l	0.01
12	An-ionic detergents (as MBAS)	20	20	20	mg/l	0.02
13	Sulphate (SO ₄ ²⁻)	600	1000	SC	mg/l	119
14	Sulphide (S ²⁻)	1.0	1.0	1.0	mg/l	0.048
15	Ammonia (NH ₃)	40	40	40	mg/l	15.3
16	Pesticides	0.15	0.15	0.15	mg/l	BDL
17	Cadmium	0.1	0.1	0.1	mg/l	0.0152
18	Chromium (trivalent and hexavalent)	1.0	1.0	1.0	mg/l	0.0223
19	Copper	1.0	1.0	1.0	mg/l	0.6374
20	Lead	0.5	0.5	0.5	mg/l	BDL
21	Mercury	0.01	0.01	0.01	mg/l	BDL
22	Selenium	0.5	0.5	0.5	mg/l	BDL
23	Nickel	1.0	1.0	1.0	mg/l	0.8730
24	Silver	1.0	1.0	1.0	mg/l	0.231
25	Total toxic metals	2.0	2.0	2.0	mg/l	1.93
26	Zinc	5.0	5.0	5.0	mg/l	0.182
27	Arsenic	1.0	1.0	1.0	mg/l	BDL
28	Barium	1.5	1.5	1.5	mg/l	0.091
29	Iron	8.0	8.0	8.0	mg/l	4.37
30	Manganese	1.5	1.5	1.5	mg/l	1.054
31	Boron	6.0	6.0	6.0	mg/l	0.63
32	Chlorine	1.0	1.0	1.0	mg/l	0.019

BDL: Below Detection Limits

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (after treatment) do comply with SEQS

 Prepared By	 Section Incharge (EGEL)
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The Analyses based on sample (s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Environments

Evergreen Environmental Laboratory

Ref: 10405/EGEL/EHS/2021/22

Date: 24-04-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 21-04-2021
Date of Sample Received: 21-04-2021
Samples collected /send by: EGEL Representative
Sample type: Drinking Water Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/45

ANALYTICAL TEST REPORT

S.#	PARAMETERS	STANDARDS	UNITS	RESULTS	TEST METHOD
		SSDWQ - LIMITS			
1	pH value	6.5 – 8.5	SU	6.7	USEPA 150.1
2	Odour	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
3	Taste	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
4	Color	≤ 15	TCU	0.0	APHA-2020 B/C
5	Turbidity	< 5	NTU	0.0	APHA-2130 B
6	Total Dissolved Solids (TDS)	< 1000	mg/L	163	Hach 8160
7	Total Hardness as CaCO ₃	< 500	mg/L	84	EDTA Titration Hach-8213
8	Fluoride (as F)	≤ 1.5	mg/L	0.96	USEPA 340.1
9	Chloride (as Cl)	< 250	mg/L	48	Hach 8206
10	Nitrate (NO ₃)	≤ 50	mg/L	1.23	Hach -8039
11	Nitrite (NO ₂)	≤ 3	mg/L	0.008	Hach - 8153
12	Cyanide (as CN-) total	≤ 0.05	mg/L	BDL	Hach 8027
13	Phenolic Compound as (Phenols)	-	mg/L	BDL	USEPA-420.1
14	Aluminum (Al)	≤ 0.2	mg/L	BDL	APHA-3111 D
15	Antimony (Sb)	≤ 0.005	mg/L	BDL	APHA-3111 B
16	Arsenic	≤ 0.05	mg/L	BDL	APHA-3120 B
17	Cadmium	0.01	mg/L	BDL	ASTM D-3557
18	Chromium, Total	≤ 0.05	mg/L	BDL	ASTM D-1687
19	Copper	2	mg/L	0.08	Hach 8506
20	Lead	≤ 0.05	mg/L	BDL	ASTM D-3559
21	Mercury	≤ 0.001	mg/L	BDL	ASTM D-3223
22	Selenium	0.01	mg/L	BDL	ASTM D-3859
23	Nickel	≤ 0.02	mg/L	BDL	ASTM D-1886
24	Boron	0.3	mg/L	BDL	ASTM D-3082
25	Residual Chlorine	0.2-0.5 at Consumer End	mg/L	ND	Hach - 8167
26	Zinc	5.0	mg/L	0.07	USEPA 3500 Zn B
27	Manganese	≤ 0.5	mg/L	BDL	Hach 8034
28	Barium	0.7	mg/L	BDL	Hach 8014
29	Pesticides	-	mg/l	BDL	USEPA 8081-A
30	Polynuclear Aromatic Hydrocarbon (as PAH)	-	g/L	ND	GC-APHA-6440
31	Alpha Emitters	0.1	Bq/l	BDL	Detector (PalmRAD 907)
32	Beta Emitters	1.0	Bq/l	BDL	Detector PalmRAD 907)

MICROBIOLOGICAL ANALYSIS REPORT

33	Total Coliform	0cfu/100ml	cfu	00	APHA-SM9221B
34	Fecal Coliform	0cfu/100ml	cfu	00	APHA-SM9221F
35	Escherichia Coli(E-Coli)	0cfu/100ml	cfu	00	APHA-SM9221F

SSDWQ=Sindh Standard for Drinking Water Quality

USEPA=United State Environmental Protection Agency

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Drinking Water Sampling results are well within guideline values set by SEQS.

Prepared By

Section Incharge
(EGEL)

The Analyses based on sample (s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used



Evergreen Environmental Laboratory

Environments

Ref: 10405/EGEL/EHS/2021/22

Date: 07-06-2021

Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 31-05-2021
Date of Sample Received: 31-05-2021
Samples collected /send by: EGEL Representative
Sample type: Drinking Water Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan
Lab. Rpt. Rf. No.: 28371/EGEL/EHS/SPL/2021/48

ANALYTICAL TEST REPORT

S.#	PARAMETERS	STANDARDS	UNITS	RESULTS	TEST METHOD
		SSDWQ - LIMITS			
1	pH value	6.5 - 8.5	SU	7.4	USEPA 150.1
2	Odour	Non-Objectable / Acceptable	Physical	Acceptable	Physical
3	Taste	Non-Objectable / Acceptable	Physical	Acceptable	Physical
4	Color	≤ 15	TCU	0.0	APHA-2020 B/C
5	Turbidity	< 5	NTU	0.0	APHA-2130 B
6	Total Dissolved Solids (TDS)	< 1000	mg/L	176	Hach 8160
7	Total Hardness as CaCO ₃	< 500	mg/L	96	EDTA Titration Hach-8213
8	Fluoride (as F ⁻)	≤ 1.5	mg/L	0.82	USEPA 340.1
9	Chloride (as Cl ⁻)	< 250	mg/L	45	Hach 8206
10	Nitrate (NO ₃ ⁻)	≤ 50	mg/L	1.33	Hach -8039
11	Nitrite (NO ₂ ⁻)	≤ 3	mg/L	0.009	Hach - 8153
12	Cyanide (as CN ⁻) total	≤ 0.05	mg/L	BDL	Hach 8027
13	Phenolic Compound as (Phenols)	-	mg/L	BDL	USEPA-420.1
14	Aluminum (Al)	≤ 0.2	mg/L	BDL	APHA-3111 D
15	Antimony (Sb)	≤ 0.005	mg/L	BDL	APHA-3111 B
16	Arsenic	≤ 0.05	mg/L	BDL	APHA-3120 B
17	Cadmium	0.01	mg/L	BDL	ASTM D-3557
18	Chromium: Total	≤ 0.05	mg/L	BDL	ASTM D-1687
19	Copper	2	mg/L	0.06	Hach 8508
20	Lead	≤ 0.05	mg/L	BDL	ASTM D-3559
21	Mercury	≤ 0.001	mg/L	BDL	ASTM D-3223
22	Selenium	0.01	mg/L	BDL	ASTM D-3859
23	Nickel	≤ 0.02	mg/L	BDL	ASTM D-1886
24	Boron	0.3	mg/L	BDL	ASTM D-3082
25	Residual Chlorine	0.2-0.5 at Consumer End	mg/L	ND	Hach - 8167
26	Zinc	5.0	mg/L	0.08	USEPA 3500 Zn B
27	Manganese	≤ 0.5	mg/L	BDL	Hach 8034
28	Barium	0.7	mg/L	BDL	Hach 8014
29	Pesticides	-	mg/l	BDL	USEPA 8081-A
30	Polynuclear Aromatic Hydrocarbon (as PAH)	-	g/L	ND	GC-APHA-6440
31	Alpha Emitters	0.1	Bq/l	BDL	Detector (PalmRAD 907)
32	Beta Emitters	1.0	Bq/l	BDL	Detector PalmRAD 907)
MICROBIOLOGICAL ANALYSIS REPORT					
33	Total Coliform	0cfu/100ml	cfu	00	APHA-SM9221B
34	Fecal Coliform	0cfu/100ml	cfu	00	APHA-SM9221F
35	Escherichia Coli (E-Coli)	0cfu/100ml	cfu	00	APHA-SM9221F

SSDWQ=Sindh Standard for Drinking Water Quality
USEPA=United State Environmental Protection Agency

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Drinking Water Sampling results are well within guideline values set by SEQS.

Prepared By	Section Incharge (EGEL)
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The Analyses based on sample (s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used



Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 15-06-2021
Boiler Type: NA
Sample type: Boiler Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	John Thompson WP-605	Natural Gas	7 TPH	107	283.2	ND	1	73.4	63.3
2	John Thompson WP-606	Natural Gas	7 TPH	119.3	294.3	ND	1	73.8	67.9
3	John Thompson WP-607	Natural Gas	7 TPH	104	273.1	ND	1	71.4	56.3

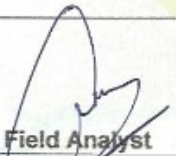
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Boiler Emission results are well within guideline values set by SEQs.

 Field Analyst	 Chemist
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 15-06-2021
Machine Type: Digester
Machine Model No: NA
Sample type: Digester Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	Digester Line-01	Natural Gas	-	721	238	ND	1	71.4	42.8
2	Digester Line-02	Natural Gas	-	711	255	ND	1	73.2	42.1
3	Digester Line-03	Natural Gas	-	712	233	ND	1	73.5	44.3
4	Digester Line-04	Natural Gas	-	718	238	ND	1	75.2	43.9

* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Digester Emission results are well within guideline values set by SEQs.

 Field Analyst	 Chemist
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Head Office: Plot No 46 Block Commercial Sector 31/D P&T Society Korangi, Karachi.

Mob: +92(0)346-2225261, 0333-2699016 Tel # 02135121125 E-mail: info@seepaklab.com Web: www.seepaklab.com

New Head Office: Plot No 46 Block Commercial Sector 31/D P&T Society Korangi, Karachi.

00001364



Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 15-06-2021
Sample Type: Noise
Sample Duration: On the spot

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

EMISSION TEST REPORT

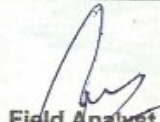
S. No.	Sampling Site Location	Min dB(A)	Max dB(A)	Average dB(A)	SEQS Standard dB(A)
1	Beater House	84.2	88.7	86.45	75
2	Refiners	83.1	88.9	86	
3	Generators	95.3	99.9	97.6	
4	Chiller A/C	71.1	74.8	72.95	

SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPATECH/739/2014

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The noise levels are not well within guideline values set by SEQs.

 Field Analyst	 Chemist
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 15-06-2021
Machine Type: Incinerator
Machine Model No: NA
Sample type: Incinerator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

EMISSION TEST REPORT

S. No.	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	Incinerator	Natural Gas	-	419.2	322.7	ND	1	68.1	76.7

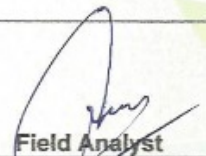
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Incinerator Emission results are well within guideline values set by SEQs

 Field Analyst	 Chemist
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The Analyses based on actual site condition when sample was collected. The interpretation of opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 15-06-2021
Sampling Duration: On the Spot.
Sample type: Vehicular Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

VEHICULAR EMISSION TEST REPORT

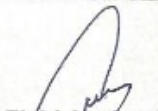
S. No.	Vehicle Details				Fuel Type	TEST METHOD		
						Gas Analyzer	Ringlemann Scale	Noise Meter
	TEST PARAMETERS							
	CO	Smoke	Noise					
	SEQS LIMITS							
	4.0 % For New Vehicles 6.0 % For 10 year or Older models	40% or 2 Ringleman Scale	75 dB(A)					
RESULTS								
1	TOYOTA 60-8FD30	Frame No. 60FD30-12772	FORK LIFTER	3 Ton	Diesel	1.8	1	69.1
2	TOYOTA 60-8FD15	Frame No. 608FD18-11912	FORK LIFTER	2.5 Ton	Diesel	2.1	1	64.5
3	TCM FD6028	30G01987	FORK LIFTER	6 Ton	Diesel	1.5	1	65.3
4	Suzuki CS-8243 (Model 2009)	CS-8243	Ambulance		Petrol	1.7	1	57.7

❖ SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2014

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Vehicular Emission concentration is well within guideline values set by SEQS.

 Field Analyst	 Chemist
--	---

The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed are based on judgment. We have no responsibility and warranty or representation in connection with which such report is used.



Head Office: Plot No 46 Block Commercial Sector 31/D P&T Society Korangi, Karachi.

Mob: +92(0)346-2225261, 0333-2699016 Tel # 02135121125 E-mail: info@sespaklab.com Web: www.sespaklab.com

New Head Office: Plot No 46 Block Commercial Sector 31/D P&T Society Korangi, Karachi.

00001361



Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 15-06-2021
Generator Model No: JF600
Sample type: Generator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

EMISSION TEST REPORT

S. No.	PARAMETERS				CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS				mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS				800	400	1700	2	75	300
	SOURCE	FUEL TYPE	Serial No	LOAD	RESULTS					
1	JENBACHER	Natural Gas	5971091	1400 KW	1293.2	1521.2	ND	1	92.9	168.9
2	JENBACHER	Natural Gas	1237822	1400 KW	1367.7	1788.4	ND	1	94.2	177.8

* SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Generator Emission results do not comply with the limits set by SEQS.

 Field Analyst	 Chemist
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 15-06-2021
Date of Sample Received: 15-06-2021
Samples collected /send by: SES Representative
Sampling Location: Before Treatment
Sample type: Wastewater Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

ANALYTICAL TEST REPORT

S. No	Parameters	Results	SEQS Limits	Method Reference
1	Temperature °C	35.3	40	ASTM D 6764-02 (2007)
2	pH Value (acidity/basicity)	11.91	6-9	ASTM D 6764-02 (2007)
3	5-days Biochemical Oxygen Demand (BOD) (mg/l) at 20°C	249	80	HACH METHOD 1009
4	Chemical Oxygen Demand (COD) (mg/l)	1452	150	ASTM D 1252-00
5	Total Suspended Solids (TSS) (mg/l)	221	200	HACH, USA Method#8006
6	Total Dissolved Solids (TDS)(mg/l)	2869	3500	HACH Method#8006
7	Sulfide	0.144	1.0	US EPA Method 200.8

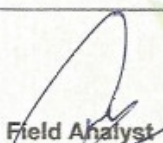
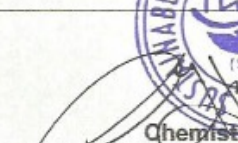
* SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: Not Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (before treatment) do not comply with SEQS limits for pH, BOD, COD, TSS.

 Field Analyst	 Chemist
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Sampling Date: 15-06-2021
Generator Model No: NA
Sample type: Generator Emission Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

EMISSION TEST REPORT

S. No	PARAMETERS			CO	NO _x	SO ₂	SMOKE	NOISE	PM
	UNITS			mg/Nm ³	mg/Nm ³	mg/Nm ³	Ringlemann scale	dB(A)	mg/Nm ³
	SEQS-LIMITS			800	400	1700	2	75	300
	SOURCE	FUEL TYPE	LOAD	RESULTS					
1	ONIS VISA	Diesel	250 KVA	209.1	395.3	96.4	1	73.2	81.2

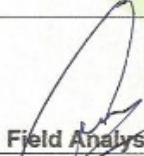
* SEQs= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: NOT Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Generator Emission results are well within guideline values set by SEQs.

 Field Analyst	 Chemist
--	---

The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

Date of Sample Collection: 15-06-2021
Date of Sample Received: 15-06-2021
Samples collected /send by: SES Representative
Sampling Location: After Treatment
Sample type: Wastewater Sampling

ANALYTICAL TEST REPORT

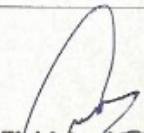
S. No.	Parameter	Into Inland Waters	Into Sewage Treatment	Into Sea	unit	Result
1	Temperature or Temp. increase	40<3	40<3	40<3	°C	31.6
2	pH value (H ⁺)	6-9	6-9	6-9		7.76
3	Biological Oxygen Demand (BOD) ₅ at 20 °C	80	250	80	mg/l	64.2
4	Chemical Oxygen Demand (COD) _{Cr}	150	400	400	mg/l	139.8
5	Total Suspended Solids (TSS)	200	400	200	mg/l	46
6	Total Dissolved Solids (TDS)	3500	3500	3500	mg/l	2301
7	Oil and Grease	10	10	10	mg/l	6.33
8	Phenolic Compounds (as Phenol)	0.1	0.3	0.3	mg/l	0.038
9	Chloride (as Cl ⁻)	1000	1000	SC	mg/l	200.7
10	Fluoride (as F ⁻)	10	10	10	mg/l	0.219
11	Cyanide (as CN) ⁻ total	1.0	1.0	1.0	mg/l	0.01
12	An-ionic detergents (as MBAS)	20	20	20	mg/l	0.02
13	Sulphate(SO ₄ ²⁻)	600	1000	SC	mg/l	121
14	Sulphide (S ²⁻)	1.0	1.0	1.0	mg/l	0.047
15	Ammonia (NH ₃)	40	40	40	mg/l	16.4
16	Pesticides	0.15	0.15	0.15	mg/l	BDL
17	Cadmium	0.1	0.1	0.1	mg/l	0.0153
18	Chromium (trivalent and hexavalent)	1.0	1.0	1.0	mg/l	0.0228
19	Copper	1.0	1.0	1.0	mg/l	0.6421
20	Lead	0.5	0.5	0.5	mg/l	BDL
21	Mercury	0.01	0.01	0.01	mg/l	BDL
22	Selenium	0.5	0.5	0.5	mg/l	BDL
23	Nickel	1.0	1.0	1.0	mg/l	0.832
24	Silver	1.0	1.0	1.0	mg/l	0.233
25	Total toxic metals	2.0	2.0	2.0	mg/l	1.86
26	Zinc	5.0	5.0	5.0	mg/l	0.173
27	Arsenic	1.0	1.0	1.0	mg/l	BDL
28	Barium	1.5	1.5	1.5	mg/l	0.089
29	Iron	8.0	8.0	8.0	mg/l	4.35
30	Manganese	1.5	1.5	1.5	mg/l	1.066
31	Boron	6.0	6.0	6.0	mg/l	0.59
32	Chlorine	1.0	1.0	1.0	mg/l	0.018

BDL: Below Detection Limits

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (after treatment) do comply with SEQs

 Field Analyst	 Chemist
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The Analyses based on sample(s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

Date of Sample Collection: 15-06-2021
Date of Sample Received: 15-06-2021
Samples collected /send by: SES Representative
Sampling Location: After Treatment
Sample type: Wastewater Sampling

ANALYTICAL TEST REPORT

S. No	Parameters	Results	SEQS Limits	Method Reference
1	Temperature °C	31.6	40	ASTM D 6764-02 (2007)
2	pH Value (acidity/basicity)	7.76	6-9	ASTM D 6764-02 (2007)
3	5-days Biochemical Oxygen Demand (BOD) (mg/l) at 20°C	64.2	80	HACH METHOD 1009
4	Chemical Oxygen Demand (COD) (mg/l)	139.8	150	ASTM D 1252-00
5	Total Suspended Solids (TSS) (mg/l)	46	200	HACH, USA Method#8006
6	Total Dissolved Solids (TDS)(mg/l)	2301	3500	HACH Method#8006
7	Sulfide	0.047	1.0	US EPA Method 200.8

* SEQS= Sindh Environmental Quality Standards (The Gazette of Pakistan) Registered No. EPA/TECH/739/2016

* ND: Not Detected

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The effluent sampling results (after treatment) do comply with SEQS

 Field Analyst	 Chemist
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The Analyses based on actual site condition when sample was collected. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used.





Report to: M/s. EHS Services
Environmental & Analytical Solutions
Mezzanine No. 1, Plot # 126,
10th commercial street, Phase-IV, DHA,
Karachi, Pakistan.

Date of Sample Collection: 15-06-2021
Date of Sample Received: 15-06-2021
Samples collected /send by: SES Representative
Sample type: Drinking Water Sampling

Site ID: M/s Security Papers Ltd
Jinnah Avenue, Malir Halt, Karachi-75100, Pakistan

ANALYTICAL TEST REPORT

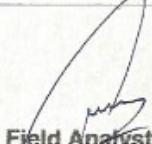
S.#	PARAMETERS	STANDARDS SSDWQ - LIMITS	UNITS	RESULTS	TEST METHOD
1	pH value	6.5 – 8.5	SU	7.4	USEPA 150.1
2	Odour	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
3	Taste	Non-Objectionable / Acceptable	Physical	Acceptable	Physical
4	Color	≤ 15	TCU	0.0	APHA-2020 B/C
5	Turbidity	< 5	NTU	0.0	APHA-2130 B
6	Total Dissolved Solids (TDS)	< 1000	mg/L	176	Hach 8160
7	Total Hardness as CaCO ₃	< 500	mg/L	96	EDTA Titration, Hach-8213
8	Fluoride (as F ⁻)	≤ 1.5	mg/L	0.82	USEPA 340.1
9	Chloride (as Cl ⁻)	< 250	mg/L	45	Hach 8206
10	Nitrate (NO ₃)	≤ 50	mg/L	1.33	Hach -8039
11	Nitrite (NO ₂)	≤ 3	mg/L	0.009	Hach - 8153
12	Cyanide (as CN ⁻) total	≤ 0.05	mg/L	BDL	Hach 8027
13	Phenolic Compound as (Phenols)	-	mg/L	BDL	USEPA-420.1
14	Aluminum (Al)	≤ 0.2	mg/L	BDL	APHA-3111 D
15	Antimony (Sb)	≤ 0.005	mg/L	BDL	APHA-3111 B
16	Arsenic	≤ 0.05	mg/L	BDL	APHA-3120 B
17	Cadmium	0.01	mg/L	BDL	ASTM D-3557
18	Chromium, Total	≤ 0.05	mg/L	BDL	ASTM D-1687
19	Copper	2	mg/L	0.06	Hach 8506
20	Lead	≤ 0.05	mg/L	BDL	ASTM D-3559
21	Mercury	≤ 0.001	mg/L	BDL	ASTM D-3223
22	Selenium	0.01	mg/L	BDL	ASTM D-3859
23	Nickel	≤ 0.02	mg/L	BDL	ASTM D-1886
24	Boron	0.3	mg/L	BDL	ASTM D-3082
25	Residual Chlorine	0.2-0.5 at Consumer End	mg/L	ND	Hach - 8167
26	Zinc	5.0	mg/L	0.08	USEPA 3500 Zn B
27	Manganese	≤ 0.5	mg/L	BDL	Hach 8034
28	Barium	0.7	mg/L	BDL	Hach 8014
29	Pesticides	-	mg/L	BDL	USEPA 8081-A
30	Polynuclear Aromatic Hydrocarbon (as PAH)	-	g/L	ND	GC-APHA-6440
31	Alpha Emitters	0.1	Bq/l	BDL	Detector (PalmRAD 907)
32	Beta Emitters	1.0	Bq/l	BDL	Detector PalmRAD 907)
MICROBIOLOGICAL ANALYSIS REPORT					
33	Total Coliform	0cfu/100ml	cfu	00	APHA-SM9221B
34	Fecal Coliform	0cfu/100ml	cfu	00	APHA-SM9221F
35	Escherichia Coli(E. Coli)	0cfu/100ml	cfu	00	APHA-SM9221F

SSDWQ=Sindh Standard for Drinking Water Quality
USEPA=United State Environmental Protection Agency

Note:

- Issued without prejudice
- Quality was assured through self-calibration of the instrument.
- The client is responsible lawful usage of reported data in future.

Remarks: The Drinking Water Sampling results are well within guideline values set by SEQS.

Field Analyst:  Chemist: 

The Analyses based on sample (s) provided to us by the Client. The interpretation or opinions expressed represent the best judgment. We have no responsibility and warranty or representation in connection with which such report is used





ENVIRONMENTAL PROTECTION AGENCY
GOVERNMENT OF SINDH

Plot # ST-2/1, Sector 23, KIA, Karachi-74900

Ph: 5065950, 5065598, 5065637

5065532, 5065946, 5065621

epasindh@cyber.net.pk

Facsimile: 5065940

Dated: 27-07-2020

To,

The Chief Executive Officer / Managing Director / Director General / Chairman /
Mr. Qazi Syed Imran Azam (General Manager, IMS)

M/s. Security Papers limited,

Address: Jinnah Avenue, Malir Halt, Karachi,

SUBJECT: ENVIRONMENTAL APPROVAL FOR THE HANDLING, STORAGE AND TRANSPORTATION OF SULPHURIC ACID, HYDROCHLORIC ACID AND SODIUM HYDROXIDE AS PER HAZARDOUS SUBSTANCE RULES 2014.

This is with reference to your letter having reference No. Nil, Dated: 09.07.2020, received in this office on dated: 17.07.2020 along with Hazardous Substances Management Plan (HSMP) about your proposed activity regarding the Handling, Storage & Transportation of sulphuric acid, hydrochloric acid and sodium hydroxide as per hazardous substance rules 2014.

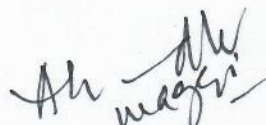
Sindh EPA has reviewed your case in light of Sindh Environmental Protection Act 2014; for implementation in your proposed activity with subject to the compliance of following conditions:

1. That, this approval is applicable only for Handling, Storage & Transportation of sulphuric acid, hydrochloric acid and sodium hydroxide as per hazardous substance rules 2014.
2. That, there should be no violation of any rules, regulations and provisions of Sindh Environmental Protection Act 2014.
3. That, M/s. Security Papers limited will comply with Sindh Environmental Quality Standards (SEQS) for wastewater, air emissions and noise in case of generation of such kind of pollution.
4. That, for the disposal of hazardous waste material; M/s. Security Papers limited shall bind to dispose-off as per Hazardous Substance Rules defined in Sindh Environmental Protection Act 2014.

Sh. Imran Azam

5. That, M/s. Security Papers limited will submit Environmental Monitoring Reports (EMRs) to EPA – Sindh on monthly basis along with the mode of safe disposal of Hazardous chemical / substance.
6. That, M/s. Security Papers limited will bound to comply true and sprit concerning Environmental Management Plan and maintain the complete record of the suppliers on quarterly basis and same shall be provided to this Agency, and may be examined by the official of this agency at any time.
7. That, in case of any emergency, loss or damage M/s. Security Papers limited is bound to compensate the affected and make it good as original.
8. That, M/s. Security Papers limited will bound to arrange tree plantation of about 25 indigenous plants in and around the facility.
9. That, this approval shall not be valid for the import of any hazardous substances, while, in case of import of Such substances (Banned / Restricted items listed Import Policy Order, 2016; Ministry of Commerce, Government of Pakistan); then, M/s. Security Papers limited shall approach to Ministry of Climate Change, Islamabad, Government of Pakistan.
10. That, this approval is provisional and shall be treated cancelled without any intimation / notice if any of the above mentioned conditions are violated or not complied with, including prosecution before the Environmental Protection Tribunal, Sindh or Honorable Judicial Magistrate Court.
11. That, this approval is not valid for any Court matter / dispute.
12. That, this approval is valid up to 26.07.2021

That, this approval is issued with the approval of competent authority, i.e, Director General, Environmental Protection Agency, Sindh.


Deputy Director (Lab.)
**For Director General,
Sindh EPA.**

C.c to:

1. P.A. to Director General, Sindh EPA.
2. Director, ROK, Sindh EPA.
3. Office copy.