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REASSESSMENT OF EXISTING ENVIRONMENTAL REGULATIONS / LAWS IMPLEMENTATION, THROUGH THIRD PARTY (ENVIRONMENTAL ORGANIZATION) IN THE THIRD WORLD FOSSIL FUEL PRODUCING COUNTRIES

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Abstract: The degree of development is directly proportional with the degree of production resources of a country. The fundamentals of the modern development are primarily based upon the invention of wheel, which was created in 4000, BC, during the era of Indus Civilization (**The Wheel)**. Principally, the wheel is directly relevant to development even today, except that, there is no concept of progress, development, and human happiness. Every wheel needs energy to move for human sustenance, whether its ox, donkey, camel in the cart or oil in the engine, all needs energy to move the wheel, in the world in general. The energy requirement of civilization is ever increasing to reduce the gap of communication, with help of technological advancement, in almost all sectors of modern society. Thus in the 20Th century the discovery of fossil fuel brought about the process of development in the reality. The growth of energy sector has been multiplied on colossal scale around the globe, albeit, environmental damage and destruction made mankind's future doubtful, with extra fear of being non-existent on the earth. However, the causes of being non-extinct are numerous and realistic in nature. By fulfilling the obligation of human consumption of energy, we crossed all limits and bounds of using certain hazardous chemicals, which have dual impact such as on the environment and human health in general. The quantity and rate of using may be different, but it might have certain effects upon man and the environment. It's needs to reevaluate and analyze dangerous effects and try to have alternative to reduce the future dependency on these chemicals and the proper disposal of this hazardous waste, to avoid this, we can save our future generations, and the nature.

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Key Words: Reassessment, Implementation, Fossil, Environment, Chemicals, Hazardous. Degradation.

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1. **Introduction:** The utility of chemicals, production of industrial waste, and management of dispose of the generated waste are the biggest issues of oil, gas, and coal operational sites throughout the world. The amount and quantity of hazardous chemicals usage is variable and further depends upon the type of energy exploring operational sites. Again issue of proper management of generated waste, it's handling to transportation, and to dispose off methods is of immense importance. In addition to that, it's calculation of the impacts on the human health, and surrounding environment, whether, the operational site is located offshore or onshore facility. As we know that the third world has many deficits in almost every sector, including education, health and general management in the society. The giant contracting companies / organizations have track record of mismanagement, deliberate avoidance to relocate the poisonous materials to a proper place, and required methods to dispose off the this hazardous waste. On the other hand poor countries have track record of kickbacks, commissions, and poor educational records to assessing the gravity of hazardous materials in general. History is fraught with such an example throughout the world, as it happened in India at Bhopal Industrial leakage took a great toll of human life.

   Keeping in view, the world has to evolve a mechanism of inspection / auditing, analysis, and proper monitoring system to scrutinize the

memorandum of understanding between the governments and the fossil fuel explorer. In addition to that, the contract holder for exploration, signed terms and conditions to fulfill the requirements in future. While the third party should consist on the pattern of IAEA (International Atomic Energy Agency) to resolve the gross violation if any occurs.

Fig No. 1. Smoke from a Chimney of oil Refinery.

2. Study Area.

The third world countries similar to Pakistan, Iran, Nigeria, Sudan, Chad, Ivory Coast, Suriname, Papua New Guinea, Cameroon, Gambia, Somalia, Panama, and Albania etc., where there stands minimized or no applications of environmental, health & safety measures being observed. Commonly operational facilities run people with or without rules and regulations, though the constitutional statutes remain present but the countries have no systemic records of maintain the rules of companies' and the proper disposable of waste materials. The usage of chemicals in the industry is universal for the exploration, unfortunately, the measure are not universal, due to certain reasons. Foremost of all reasons stay the application of international standards for quality control, which can be applied in the Texas, USA, however it's least possible in the mentioned above countries of third world. Whereas, the series of chemicals which is normally, used in the exploration is homogenous in a nature, everywhere in the world, unfortunately, standards are heterogeneous in the nature.

3. Research Methodology.

Literature review, online data and statistics given by the international organizations, surveys conducted by UNO, OPEC, World Bank, world leading organizations of fossil fuels exploration, and environmental organizations.

4. Discussion.

The major organization of oil, gas, and coal industries belong to wealthy billionaire around the world, consequently, it remained un-calculated for its dangerous effects on man and environment, except with a few exceptions, in case of heavy leakage or a major damage occurs, otherwise a blind eye remain kept upon it. The environmental impact assessments regarding any installation having been a bird's eye view nothing additional than a few modifications, if some objection rose, otherwise, the installation is due and final with certain formalities. Regulations being violated from beginning such as, drilling, excavation, processing, transportation, dumping or capping, remain unabated.

4.1 Environmental Regulation Applications.

Again third party involvement is required, as EPA works in the USA and CANADA to observe the offshore and onshore drilling, unfortunately, its operation and scope is limited to industrialized world. To contain the current scenario through the local organizations, this may work as a third party for the application of environmental regulations. The operation and assessment are much beyond the local environmental organizations jurisdiction and having no capacity of technical staff and the latest scientific instruments to assess the impacts of a particular site.

4.2 Environmental Damages on Shore & Offshore Drilling of Oil and Gas.

A wide range of environmental damages is linked with oil drilling operation, whether the operation taking place offshore or onshore, it has certain environmental damaging effects. Drilling affects onshore or offshore directly affects the both man and environment. Fear intensified when leakage or breakage of equipment take place during the operation, affects in many ways, such as, leakage of noxious chemicals, discontinued operation of installations, and reduced production, as well as extra expenditures incurred. Oil spill and its recollections have extra time, expenditures, and release of chemicals into the environment.

Fig No: 2. Countless utility of Chemical drums in oil industry.

4.3 Kickback and Commissions System.

It has been observed that the kickbacks and commissions are widely practiced in the fossil fuel industry, the practice underway from top to bottom level and even the operation site. The local influential blackmailing for the lower appointments, extortion of money, fuel for personal vehicles and selling in the market.

4.4 Violation of Labor Laws in Appointments and Removal.

It's quite sure that all key posts of administrative staff, technical staff, i.e. engineering / Accounts / Auditing / Security Personals shall be compulsorily appointed from the Ministry of Petroleum production / OGDL / Natural Resources Institutions of Federal Government.
While, the lower staff shall be appointed from the operation sites, contract obtaining organizations violate rules from the day one, as it is already decided for non-technical jobs the people shall be appointed, instead of that even peon / security personals / clerical staff / laundry / kitchen and other supplies has to appointed from other provinces through Islamabad, subsequently local population demonstrate against the violation, unfortunately, none to pay attention to these people. Example: Badin Oil Field, Sindh, Qadirpur Gas Field, Ghotki Sindh, Bhit Gas Field Dadu Sindh, Sanghar Oil / Gas Fields, Sanghar, Sindh, Kandhkot Gas field, Jacobabad, Sindh.

4.5 Inspection of Operational Sites.

The system of inspection of the field areas is age-old and outdated, regarding the usage of chemicals, and its permissible level, disposal of hazardous waste, its transportation, and removal. No proper mechanism available except on the papers, on the time of contract allocation. Yearly visit of federal officers arraigned with complete protocol, staying at five star / four star hotels, simple tour arraigned to check the site, ultimately, sound and satisfactory report submitted to higher authorities. No third party directed to testify the submitted report as an independent inquiry.

4.6 Utility and consumption of Diverse Chemicals.

In addition to that, maximum lethal chemicals being used in tons; none knows where the waste should be disposed off such as, Crystalline Silica, Methanol, Formaldehyde, Hydrofluoric Acid, Sulfur Hexafluoride, Benzene, Nitrogen Oxides, Sulfur Dioxide, Pet Coke, Polycyclic Aerometric Hydrocarbons, Mercury, and Radon etc. These chemicals have serious human health and environmental consequences, which last for the years; even there effects were seen in the subsequent generations. These issues are solved just on the dining table, rather than inspecting scientifically through analyzing and monitoring.

Chemicals and Effects Chart

S/N	Chemical	Cause
1.	Crystalline Silica	Silicosis
2.	Methanol	Eye & Stomach problems.
3.	Formaldehyde	Carcinogen
4.	Hydrofluoric Acid	Tissue & Bone damage.
5.	Sulfur Hexafluoride	Effects Brain
6.	Benzene	Bone Marrow, RBC / WBC Damage etc.
7.	Nitrogen Oxide	Cardiac Arrest
8.	Sulfur Dioxide	Lungs Cancer
9.	Pet Coke	Produces 5 – 10 % Carbon.
10.	Polycyclic Aerometric Hydrocarbons. PAH.	Gene Mutation, Damages DNA, Low Birth Weight, Asthma, Heart Malformation,
11.	Mercury	Deafness, Blindness, Mental Retardation, affects fertility, Blood Pressure regulations, Memory loss, Vision Loss, Tremors, Numbness of Fingers.
12.	Radon	Lungs Cancer.

Table No: 1. commonly used chemical in oil and Gas industry throughout the world.

5. Conclusion.

The history of environmental damage is as old as human history itself. The human beings for their sustenance and survival whatever came in front of him destroyed and damaged. This damage got much speed during the period of Industrial Revolution in 18Th century Europe. This destruction boosted on large scale during the 20Th century, with the discovery of Oil and automobile industry. The automobile industry paved the way for carbon release on the alarming state around the globe. In addition to that further utility of harmful chemicals in drilling and exploration of oil, intensified health and environmental destruction.

The immense load of chemical applications without consequences continued to release in environment unabated. Though the current state of environmental awareness is common with certain checks and balances around the world, but the scope and ability of environmental check is limited to the developed countries. Whereas, the third world remains unabated, where gross violation of drilling / exploration being committed by the exploring agencies. In terms of usage of the lethal chemicals, handling, transportation, and waste management, is the quite bigger issue to comprehend the situation.

The discharge of these chemicals into environment, certainly erupt major issues of environmental destruction.

- **(i)** Land Contamination.
- **(ii)** Water Pollution.
- **(iii)** Air Pollution.
- **(iv)** Global Warming.

Keeping in view the current scenario its need of hour, there must be a third party, which has ability to assess the gravity and threat of chemicals, and possible impacts upon human health and environment. In addition to that proper endorsement of labor laws enactment to avoid the further deterioration. Otherwise, fake statements, audits, and inspections further accelerate scale of deterioration human health, environmental damages, and exhaustion of natural resources. Resultantly, current practice of fossil fuel exploration would enhance the carbon footprint throughout the world. There is a need of urgent establishment of third party regime like IAEA (International Atomic Energy) to manage the fossil fuel industry, with dictated regulation / laws around the World.

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