

## **Special Audit in respect of inconveniences caused to Millennium City dwellers due to operations of the Ceylon Steel Corporation Ltd 2015**

### **1. Background and Present Position**

#### **1.1 Steel Factory**

This factory has been commenced as a donation from the Republic of China and incorporated under the State Industrial Corporations Act No.49 of 1957.

Iron and steel, locally required had been manufactured by this factory and subsequently had been privatized in the year 1996 as a loss making entity under the Public Enterprises restructuring programme. Thereafter, its private ownership had been changed in several occasions and at present it is operated by an interior investor as a private company.

At the inception, this factory had owned a land, 182 acres in extent close to the city, but uninhabitable to live in and a margin of about 1Km from the boundary of the factory premises had been allocated as a reservation. Further, the arboriculture had been made within the factory premises in order to protect eco friendly environment and the reservoir constructed in the premises had further improved the environmental balance. Simultaneously the effect on the environment outside the factory had been limited by the reservation, surrounding the factory.

This factory had been modernised with modern Technology by the extraordinary gazette notification dated 30 May 2011 as a Board of Investment Project under the new ownership and commenced its manufacturing process in the year 2012.

##### **1.1.1 Changes in the factory effaced along with the Change of ownership of Steel Factory.**

This steel factory had been commenced as a Public Corporation in the year 1961 and subsequently operated as a Government owned Private Company since 1993. Thereafter it had been sold to Korea Heavy Industries & Construction Company Ltd in the year 1996 and then its ownership had been rested in a private entity.

Subjected to changes continuously the new proprietary, this has been incorporated in the name of "Ceylon Steel Corporation Limited" in the year 2010 and commenced manufacturing activities. Under the new management, this industry had been subjected to various changes and finally it has been enhanced to manufacture galvanize pipes, in addition to the manufacture of iron rods in that case, manufacturing methods have been changed by using modern Technology. Especially, action had been taken to utilize energetic sources such as coal and lubricant oil in addition to electricity and as a result more steam is emitted to air. With these various improvements, the capacity of the factory could be increased and it had contributed to increase the country's manufacture of iron wirers and galvanize pipes.

##### **1.1.2 Approval of the Industrial Project**

After the approval of the commencement of manufacture of Galvanize pipes in this factory as a factory, equipped with modern Technology under the Strategic Development Act No.14 of 2008, it had been operated under the approval of the Board of Investment of Sri Lanka. The

Environmental Protection License to be obtained to operate such type of factories had been issued by the Central Environmental Authority for the period from 20<sup>th</sup> November 2013 to 19<sup>th</sup> November 2014. Nevertheless, the tasks to be carried out within the present factory in respect of obtaining the Environmental Protection License to be issued for BOI Projects had not been rectified, though it was informed. And as such the ascertainment of BOI Environmental Protection License had been delayed constantly.

## **1.2 Millennium City Housing Project**

The Millennium City Housing Project had been commenced in the year 1999 as another project of the Board of Investment of Sri Lanka. It was initially planned to construct 1575 houses within the 97.3 acres from this housing project consisting of 6 Zones. This project had extended to areas where the reservation located surrounding the Athurugiriya Steel Factory. Moreover, the houses of this housing project consist of 3 types of houses as A, B and C and they had been designed as a middle class housing scheme as a single floor and 2 floors. The design of houses built near the steel factory boundary had been limited to a single floor and it can be determined as an action taken to minimise the impact of the factory. Under this circumstance, the construction of this had been commenced as an approved project of the Board of Investment of Sri Lanka and under the approval and supervision of the Housing and Urban Development Authority and the relevant Local Authority of the then Kaduwela Pradeshiya Sabha.

### **1.2.1 Approval of The Millennium City Housing Project**

The following observations are made in this regard.

- (a) It was observed that a sufficient consideration had not been made at the time in conducting primary feasibility studies in respect of the impact on the environment as a result of this housing project. Even though the requirement of a reserved land had been identified and allocated an area therefore at the time of commencing this factory, in approving this housing project, attention had not been paid for the requirement of a reserved area for the factory.
- (b) The land, 97.3 acres in extent in that reservation area belonged to the then Ceylon Steel Corporation had been vested in respect of this project and these houses had been constructed near the boundary of the factory. The approval had been granted to construct these houses near the boundary of the factory, stating that they should be single floor houses (as approved in the environment report)

However, according to the paragraph '2' of the observation committee report of the Ministry of Housing and Urban Development in respect of this housing project, dated on 28 October 1998 observations were made stating that this housing project would be a problem in the future improvements of the Ceylon Steel Corporation.

Despite that fact, the Ministry of Housing and Urban Development had given its approval for the Initial Environmental Report (IEE) of this project. However, at the beginning of the housing project, in the zone 5 which had been much effected by the factory operations, the institutions such as Board of Investment of Sri Lanka, Central Environmental Authority and the Ministry of Housing and Urban Development

Authority had not paid adequate attention on the impact to the dwellers inhabited in the zones near the factory, in view of future improvements and developments of this factory.

## **2. Basis of Audit**

At the beginning as a heavy industry named as Ceylon Steel Corporation, various actions had been taken to minimise the environmental impact thereon. However as a result of building houses belonging to the Millennium City Housing Project implemented since the year 1999 in the reserved area near this factory various complaints had been received from the households living in the zone 5 of this housing scheme, in respect of this factory. Those complaints included that excessive sound and smoke had affected the day today life of the occupants of these houses considerably. Accordingly in considering the functions and responsibility of the Kaduwela Urban Council within which this housing scheme is situated and the Board of Investment which approved this project and performs the function as the primary responsible control authority and the Environmental Authority which should be intervened in respect of environmental issues, audit attention is drawn in respect of the functions performed by those institutions on the impact of the environment and dwellers living in this housing scheme.

## **3. Observations**

### **3.1 Commencement of the new Galvanize Manufacturing Division**

With the commencement of the manufacture of Galvanize pipes under the Strategic Development Act No. 14 of 2008 and with the approval of the Board of Investment of Sri Lanka the protestation had arisen from the occupants of the housing scheme. Uproarious sound and smoke emitted during day and night time from this factory and this manufacturing division had been the cause for the protest. As such the Board of Investment and the Central Environmental Authority had issued instruction and guidance to control the massive sound.

#### **Comments of the Board of Investment of Sri Lanka**

“Agreed”

### **3.2 Tests carried out in respect of operations of the factory**

The Audit team along with the staff of the Central Environmental Authority had made observations for 4 days, day and night about the level of sound generated from the operation of the factory associated with the factory and the complainant parties. The factory premises as well as the related zone of the housing scheme for which the factory operations had been effected had also been covered by our examination. The matters revealed at that examination are given below.

- (a) Day time on 13 July 2015, we observed the factory premises and it was observed that the following action had been taken by the factory management to minimize the difficulties faced by occupants.
  - i. Use of timber where Galvanize pipes are fallen instead of using iron.
  - ii. Use of nylon block instead of using iron block.

- iii. Use of water docks where iron is fallen.
- iv. Holes between the walls of the factory buildings and the roof and the other holes existed in the walls built towards the zone 5 of the housing scheme had been permanently covered by using bricks.
- v. Factory windows opened to the zone 5 had been permanently closed.
- vi. Doors of the factory were always closed and the use of absorbing materials to the doors to minimise the expansion of sound.
- vii. Use of sound absorption barriers in the sound generated places of the factory.
- viii. Wall around the factory had been further heightened.
- ix. As the methodology use for the eco test carried out to check whether the Galvanize pipes have been manufactured at a specific standard had been changed and as a result action had been taken to minimise the uproarious sound existed before.
- x. As the walls of the factory towards the zone 5 had been fully covered, the front walls of the factory have been opened, so as to minimise the extravagant heat affected by employees.
- xi. Action had been taken to smoke generated in the process of manufacture of steel wires had been directed to the chimney.

Nevertheless, when it is observed from the 3 storied house constructed in zone 5 of the housing scheme smoke and the sound generated and emitted from the galvanize pipes manufacturing division has been spread all over the area.

**Comments of the Board of Investment of Sri Lanka**

“Agreed”

- (b) Accordingly after the observation of the factory on the same day, this condition had been observed after being visited to zone 5 of this housing scheme nearby. Subsequently discussion had been made with the officers of the galvanize division of the factory. According to their explanations it was proposed to take future steps to reduce the impact of the smoke emitted from the factory. Other observations on this are given below.

- i. Action had been taken to release the smoke generated in the manufacture of steel wires directed to a chimney, 77 meters in height.

**Comments of the Board of Investment of Sri Lanka**

“Agreed”

- ii. However action had not been taken to full control of the smoke emitted from the galvanize industry newly started, even by the date of audit 23 August 2015.

**Comments of the Board of Investment of Sri Lanka**

“Agreed

The following comments are made with regard to the stack emissions emanated from the galvanize plant

The following mitigatory measures have been taken by the industry to reduce stack emissions emanated from the galvanize plant

- The fumes generated from the process goes through there (03) wet scrubbers
- Fumes is also controlled by adding additives to the zinc bath
- Re-organized the entire process ”

- iii. Even though it had taken 6 months period from 12 March 2015 to implement the plans in order to improve the air-hermetic system of this entity by the institute of Technology, the required designs had not been presented by that institute even by the end of the year 2015.

**Comments of the Board of Investment of Sri Lanka**

“Agreed”

- iv. When it was observed near the complainant’s house in respect of this smoke, spreading the smoke over a lower stratum of the atmosphere was observed. Comparatively this smoke had spread at roof levels, around the housing project.

**Comments of the Board of Investment of Sri Lanka**

“Agreed”

- (c) In addition to the above observations, we observed the houses at night in the zone 5 to which this uproarious sound emitted from the factory said to be affected, on 24<sup>th</sup> July 2014, 21<sup>st</sup> October 2014 and 25<sup>th</sup> August 2015 along with the officers of the Central Environmental Authority and the following matters were revealed therein.

- i. According to the data and information obtained relating to this observations, the officers of the Central Environmental Authority had observed that, the sound leaving when the factory operated its full capacity had been within the approved range of the impact on the sound obtained from the housing scheme.
- ii. When it was observed at the 3 storied house constructed in the zone 5 of the housing scheme, the impact of the sound emitted from the factory had been increased.

Accordingly by it could be concluded that when the floors are increased of houses in this housing scheme, the impact of the sound is also increased.

**Comments of the Board of Investment of Sri Lanka**

“Agreed”

**3.3 Obtaining approval for changes in the houses of the Housing Project**

Even though the reserved areas of the factory had been used at the commencement of the housing project therefore, it was decided to design the houses in order to minimise the impact of the factory. Accordingly the matters observed relating to the changes made to the houses in this zone are given below.

- (a) As stated above, the approval had been granted to commence this housing project including the reservation areas near the factory reservation and the approval had been granted to construct only single storied houses. In the changes effected to those houses, the housing plans should be approved subjected to that condition.

**Comments of the Board of Investment of Sri Lanka**

“Agreed”

**Comments of the Kaduwela Municipal Council**

Not Responded

- (b) In spite of that, the houses, especially in the zone 5 in this housing complex to which the effect of the factory was very much more had been subjected to various changes. In the examination of houses of dwellers specially who had strongly protested on the impact of the factory, it was observed that one of those houses had been a 3 storied house and it was located near the factory and as such the effect of the factory had been more than the others.

**Comments of the Board of Investment of Sri Lanka**

“Agreed”

**Comments of the Kaduwela Municipal Council**

Not Responded

- (c) In the improvement of the above housing building, it had been done after the approval of the building plan as a 3 storied building by the then Kaduwela Pradeshiya Sabha. Accordingly it was observed that the Kauduwela Urban Council had not considered the conditions and limitations to be existed at the beginning of the housing project in approving the building plan of this 3 storied building. Similarly it was observed that the impact of this had increased, as this housing project had been located very close to the factory.

**Comments of the Board of Investment of Sri Lanka**

“Even though the BOI has inquired from Hon. Mayor of Kaduwela Municipal Council by its letters dated 16/12/2014 and 11/04/2016 whether an approval/

certificate of conformity was granted for a three (03) storeyed house in the zone 5 of the Millennium City housing project, no response has been received yet.”

**Comments of the Kaduwela Municipal Council**

Not Responded

**3.4 Probable Health Problems due to Industry**

The other matter related to the factory explained by the occupants is that various diseases were infected among the occupants due to atmospheric pollution made by the factory. A written explanation had been obtained from the Public Health Inspector of the Health Medical unit of the Kaduwela Municipal Council in this respect. As reported by this officer any such diseases or health issues in respect of dwellers living in this housing scheme had not been reported or revealed up to now.

**Comments of the Institution**

“Agreed”

**Comments of the Kaduwela Municipal Council**

Not Responded

**4. Conclusion**

Whilst the ownership was being persistently changed this factory which had been opened by a local investor would be further widened on the instructions of the Central Environmental Authority and the Board of Investment of Sri Lanka, the management of the factory had taken various steps to minimise the environmental issues arisen at present. Nevertheless, protestations were made against the factory, persistently by the surrounding occupants.

In considering these issues it was reported in terms of data and information obtained by the Central Environmental Authority that when the observations made from the high buildings located in zone 5, buildings with 2 or more stories were located near the range of this environmental impact.

Accordingly it was observed that its impact would be much more under the following circumstances.

- i. In increasing the factory capacity more than the existing capacity
- ii. In building houses near the factory with heights more than the recommended heights

Furthermore, the approvals of building plans relating to the changes effected those houses had been granted without paying appropriate attention by the Kaduwela Municipal Council and as such there was a possibility of building houses with stories more than the approved number of floors. This had also caused to increase this problematic situation.

Even though this factory had opened in the year 1961, the galvanize manufacturing division caused to be arisen of this issue had been opened in the year 2012. Further, according to the observation work committee report of the Ministry of Housing and Urban Development at the

time of approving this housing scheme, observations had been made stating that this housing project would be a major issue in the future improvements of the Ceylon Steel Corporation. However, it was observed that the principal government institutions which were responsible for approvals at the beginning of the galvanize manufacturing division had not taken action to issue relevant conditions, guidance or recommendation whatsoever relating to this project.

Accordingly the appropriate attention should be paid by the Environment Division of the Board of Investment of Sri Lanka by which primarily intervenes this issue in respect environmental problems which would be arisen at the beginning of such projects. Furthermore, the Central Environmental Authority should study environmental issues in depth and the attention should have been drawn in respect of the basic objective of creation of such a reservation. In addition the relevant Local Authority should have considered the conditions and limitation existed at the beginning of the housing projects in approving building plans. There is a prime requirement that the fulfillment of such conditions in respect of buildings and carrying out changes to be made to prevent environmental issues expeditiously.