

GUIDELINES FOR LOCATION OF INDUSTRIES

2.0 Introduction

The Punjab Pollution Control Board has formulated siting guidelines for the industries to stop haphazard growth of industries and to implement the provisions of various pollution control laws effectively. These siting guidelines are helpful in control of pollution and protection of the society from the ill effects of pollution from the industries/developmental projects. The siting guidelines have been broadly categorized as under:

1. General guidelines
2. Industry specific guidelines
3. City/Area specific guidelines

2.1 General Guidelines

1. The industrial units shall be allowed to be located in industrial area, industrial estate, industrial focal point or FEZ areas as demarcated by Town & Country Planning Department, Punjab/Govt. of Punjab, wherever these exists.
2. 'Consent to establish' shall not be granted to any industry, which proposes to establish in any approved residential areas/colonies developed by any Government Agency such as PUDA, Municipal Corporation/Council, Improvement Trust etc.
3. No industry shall be located within Lal Lakir as notified in each village and in case the industry proposes to use solid fuel it should be located beyond 100m from Lal Lakir. The above is not applicable to all such category of industries for which, specified guidelines for siting have already been prescribed & may be prescribed subsequently.

2.2 Industry specific siting guidelines

The Board has laid down industry specific sitting guidelines & code of practices for the following categories of industries.

1. Stone crushers
2. Brick Kiln
3. Rice Shellers & saila plants

4. Cement plants & grinding units
5. Hot Mix Plants

2.2.1 Siting guidelines for Stone Crushing Units

The guidelines for siting of the stone crushing units as prescribed by the Govt. of Punjab vide its notification No.3/7/96-STE (5) dated 17/3/1998 are given as under:

- (1) **Quantitative standard for the SPM:** The suspended particulate matter measured between 3 & 10 meters from any process equipment of a stone crushing unit shall not exceed $600 \mu\text{gm}/\text{m}^3$.
- (2) **Code of Practice & Siting guidelines:**

2.2.1.1 FOR NEW STONE CRUSHERS (Established after 17.3.1998):

No new stone-crushing unit shall be allowed to be installed and operated within the limits of:

- A.
 - (i) 500 meters on National Highway/State Highway/Scheduled Roads in plain areas and 250 meters in sub-mountainous areas.
 - (ii) 5 Km of the city limit of metropolitan cities/Municipal Corporation.
 - (iii) 2 Km. of the city limits of A-class Towns.
 - (iv) 1.5 Km of the city limits of B-Class Towns.
 - (v) 1.0 Km of other Cities/Towns.
 - (vi) 500 meters of Village Phirni/Lal Lakir/Approved Residential colony
 - (vii) 300 meters of Historical Places/Educational Institutions/Zoological Parks/Wild Life Sanctuaries/Protected Monuments.
 - (viii) 100 meters of link roads and other district roads.
 - (ix) 300 meters of all major district roads in plain areas and 150 meters in sub-mountainous areas.
- B. Stone crushers shall be located in a minimum area of 0.4 hectare, which should be owned by the stone crusher unit or by taking land on lease either owned by the Panchayats or in the private sector.

2.2.1.2 FOR EXISTING STONE CRUSHERS (Established before 17/3/1998):

The existing stone crushers meeting the guidelines given below along with standards notified under Environment (Protection) Act, 1986 and the code of practice for pollution prevention as specified hereinafter, should be allowed to operate:

- (i) No dust emitting point within 100 meters from right of way of scheduled roads within the Chandigarh Capital Periphery Control Area/Communication Zone.
- (ii) No dust emitting point within 30 meters from the right of way of Highways/ Scheduled Roads in other parts of the State.
- (iii) 250 meters from Municipal/Notified Area Committee Limit/Village Lal Laker/ approved Residential Colonies/Historical Places/Zoological Parks/Wild Life Sanctuaries/ Protected Monuments.

NOTE:

- (i) Those units, which are not conforming to the above guidelines should be shifted from the present site.
- (ii) The Environment Impact of existing stone crushers may be studied and their further continuation reviewed after a period of five years.

2.2.1.3 FOR NEW CLUSTERS OF STONE CRUSHERS

In addition to the guidelines for new stone crushers recommended above, the following criteria will be adopted where stone crushers are set up in clusters:

- (i) A green belt of width as specified by the Punjab Pollution Control Board will be provided all around the cluster.
- (ii) Only one approach from National Highway/Scheduled Road will be provided to the cluster.
- (iii) The approach road leading to a cluster of five or more stone crushers shall not pass through the village.
- (iv) All new clusters of stone crushers shall get the layout plan approved from the Town and Country Planning Department, Punjab.

2.2.1.4 FOR EXISTING CLUSTERS OF STONE CRUSHERS:

The approach road leading to a cluster of five or more stone crushers shall not pass through any village.

2.2.1.5 CODE OF PRACTICE FOR POLLUTION PREVENTION

All the stone crushers shall take the following pollution control measures:

- (i) All the dust emitting points like Jaw/Roller Crushers, screens/classifiers should be properly enclosed/covered.
- (ii) Conveyor belts should be of proper quality material instead of used tyres.
- (iii) The ends of conveyor belts should be covered with telescopic chute.
- (iv) Regular water spray should be carried out at all dust emitting points and transfer points.
- (v) Water spray should be done on the boundary as per requirement.
- (vi) Regular cleaning of approach roads should be carried out.
- (vii) All the approach roads and ramps should be metalled.
- (viii) A green belt, consisting of three rows of trees, of which one of tall leaved trees and two rows of medium leaved dense trees, should be provided along the periphery.
- (ix) Annual health survey of the workers should be conducted.
- (x) The openings of the housing for the movement of mechanical drives, conveyor belts etc. should be properly sealed with flexible rubber flaps.
- (xi) The process waste i.e. file material should not be dumped along with roadside and should be used for filling up of low-lying areas.
- (xii) The water spray system should be interlocked with the main crushing operation.
- (xiii) The stone crushers should conform to the emission standards laid down by the Board.

The existing stone crushers meeting the guidelines for existing stone crushers, but not conforming to the guidelines for new stone crushers shall, in addition to the above pollution control measures, provide a 10 ft. brick wall as boundary/wind breaking wall facing the road as well as towards residential area with a well defined single entry point from the road.

- Each stone crusher shall install suitable pollution control measures to the satisfaction of the Board and shall obtain 'No Objection Certificate' from the Board as well as from the Town and Country Planning Department, Punjab and also conform to the other statutory regulations, if any.
- The stone crusher unit hence forth would be permitted anywhere subject to the restrictions of the Department of Town and Country Planning, Punjab and the Punjab Pollution Control Board.

- Existing stone crusher units which are not conforming to the parameters, as detailed above, shall shift to sites conforming to the above parameters within the time frame given by the Punjab Pollution Control Board to them but not later than three months.

NOTE: Existing stone crushers mean those stone crushing units, which were in operation on 17.3.1998. All stone crushers, which were established or came in operation after 17.3.1998 shall be considered as new stone crushers.

2.2.2 Siting guidelines for Rice Shellers, Sailsa Plants as prescribed by the Board are as under:

The following siting guidelines have been framed by the Board for setting up of Rice Shellers, Sailsa Plants:

| Sr. No. | Distance from | Distance |
|---------|--|----------|
| i | Municipal Corporation Limits | 2 Km |
| ii | Class A Town & Cities Limits | 2 Km |
| iii | Other Town & Cities Limits | 1 Km |
| iv | Village Lal Dora/ Phirni | 500 Mts. |
| v | Wild life Sanctuary / Zoo | 500 Mts. |
| vi | National Highway * | 300 Mts. |
| vii | State Highway * / Scheduled Road | 300 Mts. |
| viii | Residential Area (15 Pucca Houses) | 300 Mts. |
| ix | Educational Institute / Historical Religious Places/ Protected Monuments | 300 Mts. |

- **Provision of Green Belt**

- The industry should plant three rows of spreading crown varieties of evergreen broad-leaved trees all along the boundary.
- The industry shall not be located in the H.T. Transmission zone of P.S.E.B.

- **Emission Standards For Rice Shellers & Sailsa Plants**

| | | |
|--|---|--|
| | Emission Standards for S.P.M. (mg/ Nm ³) | 750* |
| | Inside the building (µg/ Nm ³) | TLV of air (to be controlled by Director of Factories) |

* **The existing units not meeting the prescribed siting guidelines will meet stack emission standards of 500 mg/ Nm³.**

- **Code of Practice**

- ✓ No Brick Jail or open structure is allowed in the processing shed except for exhaust system, which is connected with adequate air pollution control device.
- ✓ All processing sheds should be enclosed.

***The Board in its 122nd meeting held on 5/3/2004 also approved the use of mustard straw as fuel in brick kilns.**

- **Emission Standards For Cement Plants & Grinding Units**

| | | |
|----|----------------------|-------------------------------|
| a) | 200 TPD & less | S.P.M. (mg/ Nm ³) |
| | i) Existing Unit | 400 * |
| | ii) New Units | 250 |
| b) | Greater than 200 TPD | 150 |

Existing grinding units in the State can continue where they are, but the emission standards applicable, when they are located less than 200mts. from the National or State Highway or within Municipal or village limits, will be 100 mg/Nm³.

2.2.4 The guidelines for siting of the Hot Mix Plants as prescribed by the Board are as under:

The following siting guidelines have been framed by the Board for setting up of Hot Mix Plants:

| Sr. No. | Distance from | Distance |
|---------|--|----------|
| i | Municipal Corporation Limits | 5 Km |
| ii | Class A Town & Cities Limits | 2 Km |
| iii | Other Town & Cities Limits | 1 Km |
| iv | Village Lal Dora / Phirni | 500 Mts. |
| v | Wild life Sanctuary / Zoo | 500 Mts. |
| vi | National Highway * | 500 Mts. |
| vii | State Highway * / Scheduled Road | 300 Mts. |
| viii | Residential Area (15 Pucca Houses) | 300 Mts. |
| ix | Educational Institute / Historical Religious Places/ Protected Monuments | 300 Mts. |

- **Provision of Green Belt**

The industry should plant three rows of spreading crown & fast growing varieties of evergreen broad-leaf trees all along the boundary.

Note: Distance shall be measured from the edge of the metalled road to the nearest stack of the hot mix plant.

- **Emissions Standards For Hot Mix Plant**

SPM (mg/Nm³) 150

Note: There should be no smoke visible from the plant.

- **Important points for prevention of pollution by Hot Mix Plant:**

1. A suitable dust control system for the dryer and mixer to contain/recycle permissible fines in the mix should be provided. It should be capable of preventing the exhaust of fine dust into atmosphere from both ends of the dryer drum by creating adequate negative pressure.
2. The plant should have centralized control panel/cabine capable of pre-setting controlling/synchronizing all operations, starting from feeding of cold aggregates to the discharges of hot mix to ensure proper mixing. It should have adequate water scrubbing mechanism to completely remove/control the dust coming out of the drier with proper provision of re-circulation system for the scrubber water.
3. Bitumen must be mixed with aggregate as soon as it is heated and dried and second time lifting of the dried aggregate for proper batching should be avoided.
4. All roads/vehicular movement areas at site of Hot Mix Plant should be pucca/ stabilized with stone aggregates and regular sprinkling of water be ensured so that no dust is generated with vehicular movement.
5. Hot Mix Plant must have proper stack heights for the discharge of its scrubbed flue gases and bitumen heating system with proper platform and port holes as per the Punjab Pollution Control Board norms.
6. Fine dust arrested by water scrubber and collected in the re-circulation water tank should be collected and filled in a pit to be covered with fresh earth. This exercise should be repeated as and when dust is removed from re-circulation tank.

2.3 City/Area specific siting guidelines

The Government/Board has laid down city/area specific sitting guidelines for the following towns/areas:

1. Ludhiana
2. Mandi Gobindgarh
3. Capital Periphery Zone (CPZ)/Free Enterprise Zone (FEZ)
4. M.C. limits of Towns/Cities

2.3.1 Restriction of setting up of industries within 25 km from the Standard Urban Area limit of Ludhiana city:

As per provisions of notification dated 25.07.1991, of Government of India, large and medium scale industries can not allowed to be located within 25 Kms. from the periphery of standard urban area limit of cities having population of more than 10 lakh according to the 1991 census. The Ludhiana is one of such city in Punjab. This condition however, will not apply to electronics, computer softwares, printing industries and other non-polluting industries that may be notified by Govt. of India for this purpose from time to time. Substantial expansion of existing units will also be subject to the locational conditions set out as above.

The details of designated industrial areas where industry is permitted in and around Ludhiana city, are given as under:

| Sr. No. | Name of Industrial Area | Block |
|---------|---|--|
| 1. | Industrial Area-A | Within Municipal Limits |
| 2. | Industrial Area-B | Within Municipal Limits |
| 3. | Industrial Estate/IDC | Within Municipal Limits |
| 4. | Focal Point Dhandari Kalan Phase- I to VII | Phase- I to V are within Municipal Limits |
| 5. | Focal Point on G. T. Road, Ludhiana and Chandigarh Road | Within Municipal Limits and also in Ludhiana Block |
| 6. | Hambran | Sidhwan Bet Block |
| 7. | Focal Point, Samrala | Samrala Block |
| 8. | Free Enterprises Zone | Mangat and Sidhwan Bet Block |

2.3.2 Setting up of Industrial units within M.C. limits of Mandi Gobindgarh

The criteria for establishment of the new industries within M.C. limits of Mandi Gobindgarh was as follows:

1. All industries requiring CSA and / or SAC clearance and environmental clearance from Government of India under EIA notification should be allowed to establish in zone no. 2.
2. All industries except mentioned at Sr. No. 1 above should be allowed to establish in zone no. 1

However, the Board vide its decision dated 30/3/2005 has decided that all the industries proposed to be established in the industrial area (Zone – I & II) as per Master Plan of Mandi Gobindgarh may be allowed to establish and no further sub-zoning of industrial area is required.

2.3.3 Capital Periphery Control Area/Free Enterprise Zone (FEZ)

As per the Capital Periphery Control Act and Sub-Regional plan of Punjab State, no industrial activity can be undertaken within periphery of Chandigarh and its sub-Region except the following areas which have been exempted through notifications mentioned as under:

| Sr. No. | Name of the Area |
|---------|--|
| 1. | Free-Enterprise Zone (FEZ) in Dera Bassi-Mubarkpur Belt, in Chandigarh Periphery and its Sub-Region in State of Punjab vide Notification No.3/4/98-3IBI/311, dated 9/1/1990. |

| | |
|----|--|
| 2. | Setting up of Tiny Industrial Units with investment of Rs.5 Lacs on plant and machinery within abadi area of all villages falling in Chandigarh Region Periphery controlled Area, FEZ, in the permissible industrial use zones in the Master Plan and Regional Towns, with the exception that no industrial unit is to be permitted within the Abadi Area of village falling within SAS Nagar New Master Plan area vide notification No.Sur/ST/184/64/Periphery/tiny/ 16831-B, dated 28 th September, 1992. |
|----|--|

2.3.4 General guidelines for location of industries within M.C. limits of the towns/cities

The Board vide its notification No.Admn/SA-2/F.No.178/2001/98 dated 11/11/2001, has decided that the cases of the industries for grant of consent to establish/consent to operate in non-designated areas of the State shall be decided as per the following policy:

1. No new industry of any category shall be allowed in the approved residential area of any town of the State of Punjab. The approved residential area shall be designated either by PUDA/Municipal Corporation/Improvement Trust or any other designated authority of the State and it should be duly reflected in the Master Plan.
2. No new red category industry shall be given consent to establish within municipal limits except in the designated industrial area of the State.
3. The Board may continue to grant consent to establish to green category of industries which are proposed to be located in the mixed category areas or predominantly industrial areas within municipal limits of a town/city after clarification of the area by CTP/STP/DTP.
4. The Board may grant consent to operate to the entire existing green category of industries in mixed category areas or predominantly industrial area.
5. The Board may grant consent to operate to old red categories of industries operating in the approved residential areas or mixed areas but required to be shifted, if they have installed adequate effluent treatment plants and air pollution control devices.
 - (i) Initial consent to operate shall be for a period of one year with the condition that it will shift to the designated industrial area within the stipulated period.
 - (ii) The Board may further extend this period on merit after the expiry of one year in the rarest of the cases subject to the approval of the Board of Directors.

***The above clause (5) regarding grant of consent to operate to the industries in the non-designated area of the State will be restricted only to 5 cities namely Ludhiana, Jalandhar, Amritsar, Batala and Mandi Gobindgarh.**