

**Rajasthan State Industrial Development & Investment Corporation Ltd.,
Udyog Bhawan, Tilak Marg, Jaipur- 302005**

No: IPI/T-3(24)9 Vol-II/ 288
Dated: 13 May, 2014

Circular

Sub: Guidelines and instructions to be followed in water supply schemes of Industrial Areas.

In continuation of circular no. No: IPI/T-3(24)9 Vol-II/285 dated 12 May, 2014 issued regarding maintenance of water supply scheme at Industrial areas, it is once again enjoined upon all unit heads to strictly follow the laid down procedure and adhere to the norms of PHED with regard to operation and maintenance of water supply scheme. The guidelines and instructions for the chlorination of the water supply of the areas have been prepared in consonance with the standard norms of PHED. For reference copy of guidelines and instructions are enclosed.

The performa 'A' & 'B' as detailed in the guidelines are to be maintained daily at unit however, copies of performa 'B' is to be sent to H.O. by Email on fortnightly basis. Sufficient quantity of the stocks of raw material for the purpose of chlorination should be evaluated and maintained at site /store so that smooth and timely chlorination is not hampered.

Apart from above Unit Head shall ensure sufficient quantity of testing kit of the chlorination is made available to the water supply staff or to the person authorized for this purpose.


(Archan Singh)
Executive Director

Encl. : As above.

Copy to :

1. All Unit Heads.....
2. Advisor(Infra)/Advisor(A&M)/FA
3. AGM(Civil)/Sr. DGM(Tech-I)/Sr. DGM(Tech-II)

Copy also to:

1. Sr. PS to Chairman
2. PS to MD

Guidelines and instructions for the purpose of chlorination of water supply of Industrial Areas.

OBJECTIVE OF CHLORINATION

The primary objectives of the chlorination process are disinfection, taste and odour control in the system, preventing the growth of algae and other micro organisms. Bleaching powder or calcium hypochlorite is a chlorinated lime, which contains about 25 to 34% of available chlorine by weight.

CHLORINE RESIDUAL TESTING

At 30 minutes after the addition of sodium hypochlorite there should be no more than 2.0 PPM of free chlorine residual present (this ensures the water does not have an unpleasant taste or odor). At 24 hours after the addition of sodium hypochlorite to containers that are used by entrepreneurs to store water there should be a minimum of 0.2 PPM of free chlorine residual present (this ensures microbiologically clean water). A minimum chlorine residual of about 0.2 PPM at the selected monitoring point is often maintained to ensure that even a little contamination is destroyed by the chlorine. Hence, absence of residual chlorine could indicate potential presence of heavy contamination. If routine checks at a monitoring point are carried out, required chlorine residuals and any sudden absence of residual chlorine should alert the operating staff to take up prompt investigation. Immediate steps to be taken are:

- **Re-testing for residual chlorine.**
 - **Searching for source of contamination, which has caused the increased chlorine demand.**
 - **Immediate stoppage of supplies from the contaminated pipelines.**
- a. Following daily log sheet should be maintained for record of chlorination at source (reservoirs)

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Performa 'A'

Daily Log Book for Chlorination at source..... of capacity..... at industrial area.....

Date	Initial dosage, Prescribed PPM	Actual dosage PPM	Residual chlorine, Prescribed at source PPM	Actual dosage at source PPM	Remarks
1	2	3	4	5	6

- b. Following daily log sheet should be maintained for record of residual chlorine at distribution line

Daily Log Book for record of residual chlorine at distribution line of industrial area

Performa 'B'

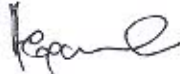
S. No.	Date	Time	Location	Residual chlorine (ppm)	Remarks

ASSESSMENT OF MICROBIOLOGICAL WATER QUALITY

Microbiological quality data can be divided into number of categories depending on the level of contamination associated. Table below shows the suggested classification scheme based on increasing order of magnitude of fecal contamination. Suggested color scheme will be useful for pictorial inspection forms.

**Classification and colour-code scheme for thermo-tolerant coli form or
e-coli in water**

Count per 100 ml	Category and colour code	Remarks
0	A (Blue)	In conformity with WHO guidelines
1-10	B (Green)	Low risk
10-100	C (Yellow)	Intermediate risk
100-1000	D (Orange)	High risk
> 1000	E (Red)	Very high risk


(A.K. Agarwal)
Sr.DGM(T-I)