

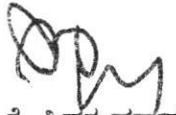
**ಕರ್ನಾಟಕ ವಿಧಾನ ಪರಿಷತ್ತು**

- 1 ಚುಕ್ಕೆ ಗುರುತಿಲ್ಲದ ಪ್ರಶ್ನೆ ಸಂಖ್ಯೆ : 1035
- 2 ಸದಸ್ಯರ ಹೆಸರು : ಶ್ರೀ ಯು.ಬಿ ವೆಂಕಟೇಶ್  
(ನಾಮನಿರ್ದೇಶನ ಹೊಂದಿದವರು)
- 3 ಉತ್ತರಿಸುವ ದಿನಾಂಕ : 14-12-2023
- 4 ಉತ್ತರಿಸುವವರು : ಉಪ ಮುಖ್ಯಮಂತ್ರಿಗಳು

| ಕ್ರ.ಸಂ | ಪ್ರಶ್ನೆ   | ಉತ್ತರ  |
|--------|---|--|
| ಅ)     | ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆಯ ಗುಣಮಟ್ಟ ನಿಯಂತ್ರಣ ಮತ್ತು ಪ್ರಯೋಗಾಲಯ ಕಛೇರಿಯಲ್ಲಿ ಅಗ್ನಿ ದುರಂತ ಸಂಭವಿಸಲು ಕಾರಣಗಳೇನು;                     | ಪ್ರಧಾನ ಅಭಿಯಂತರರು ರವರ ನೇತೃತ್ವದಲ್ಲಿನ ತಾಂತ್ರಿಕ ಸಮಿತಿಯು ತಾಂತ್ರಿಕ ಪರಿಶೀಲನಾ ವರದಿಯಲ್ಲಿ ಪ್ರಯೋಗಾಲಯದ ಕಛೇರಿಯಲ್ಲಿ ಅಗ್ನಿ ದುರಂತ ಸಂಭವಿಸಲು ಕಾರಣಗಳನ್ನು ತಿಳಿಸಿದ್ದು, ವರದಿಯನ್ನು ಅನುಬಂಧದಲ್ಲಿ ನೀಡಿದೆ.  |
| ಆ)     | ಘಟನೆಯಲ್ಲಿ ನಿಯಮಗಳನ್ನು ಉಲ್ಲಂಘಿಸಿರುವುದು ವರದಿಯಾಗಿದೆಯೇ;  | ಹೌದು.<br>ನಿರ್ದಿಷ್ಟ ಕಾರ್ಯಾಚರಣೆ ವಿಧಾನ (Standard Operating Procedure) ಉಲ್ಲಂಘನೆಯಾಗಿರುವುದು ಕಂಡುಬಂದಿರುತ್ತದೆ.   |
| ಇ)     | ದುರಂತದಲ್ಲಿ ಸಾವಿಗೀಡಾದ ಮುಖ್ಯ ಇಂಜಿನಿಯರ್ ರವರ ಕುಟುಂಬಕ್ಕೆ ನೀಡಿದ ಪರಿಹಾರವೇನು; ಇಂತಹ ಅಗ್ನಿ ಅವಘಡಗಳ ಬಗ್ಗೆ ಸರ್ಕಾರ ಕೈಗೊಳ್ಳಬಹುದಾದ ಕ್ರಮಗಳೇನು? | ಶ್ರೀ ಸಿ.ಎಂ ಶಿವಕುಮಾರ್, ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು ಇವರ ಕುಟುಂಬಕ್ಕೆ ಈ ಕೆಳಕಂಡಂತೆ ಪರಿಹಾರ ನೀಡುವ ಪ್ರಸ್ತಾವನೆಯು ಸರ್ಕಾರದ ಪರಿಶೀಲನೆಯಲ್ಲಿದ್ದು, ಸಚಿವ ಸಂಪುಟದಲ್ಲಿ ಚರ್ಚಿಸಿ ತೀರ್ಮಾನ ಕೈಗೊಳ್ಳಲಾಗುವುದು.<br><ul style="list-style-type: none"> <li>• ಶ್ರೀ ಸಿ.ಎಂ ಶಿವಕುಮಾರ್, ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು ಸೇವೆಯಲ್ಲಿ ಮುಂದುವರೆದಿದ್ದರೆ ದಿನಾಂಕ: 31-12-2037 ರಂದು ವಯೋನಿವೃತ್ತಿ ಹೊಂದುತ್ತಿದ್ದು, ಇವರು ವಯೋನಿವೃತ್ತಿ ಹೊಂದುವ ದಿನಾಂಕದವರೆವಿಗೂ ಪಡೆಯುತ್ತಿದ್ದ ವೇತನವನ್ನು ಪ್ರತಿ ಮಾಹೆ ದಿವಂಗತರ ಪತ್ನಿಗೆ ಪಾವತಿಸಲು.</li> <li>• ದಿವಂಗತರ ಪತ್ನಿ ಬಿ.ಕಾಂ, ಎಂ.ಬಿ.ಎ (ಫೈನಾನ್ಸ್) ಪದವೀಧರರಾಗಿದ್ದು, ವಿಶೇಷ ಪ್ರಕರಣವೆಂದು ಪರಿಗಣಿಸಿ ವಿದ್ಯಾರ್ಹತೆಗೆ ಅನುಗುಣವಾಗಿ ಪಾಲಿಕೆಯಲ್ಲಿ ಖಾಲಿ ಇರುವ ಅರ್ಹ ಕಿರಿಯ ಗ್ರೂಪ್ 'ಎ' ವೃಂದದ ಹುದ್ದೆಗೆ ಅನುಕಂಪದ ಆಧಾರದ ಮೇಲೆ ನೇಮಕಾತಿ ಮಾಡಲು.</li> </ul> |

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|  |  | <ul style="list-style-type: none"><li>• ಹಾಗೂ ದಿವಂಗತ ಅಭಿಯಂತರರ ಇಬ್ಬರು ಮಕ್ಕಳ ಸ್ನಾತಕೋತ್ತರ ಪದವಿಯವರೆಗಿನ ಶಿಕ್ಷಣಕ್ಕಾಗಿ ಅವರ ಆರ್ಥಿಕ ವೆಚ್ಚವನ್ನು ಭರಿಸಲು ಪ್ರತಿ ಮಕ್ಕಳಿಗೆ ರೂ.50.00 ಲಕ್ಷಗಳನ್ನು ಪಾವತಿಸಲು.</li></ul> <p>ಅಗ್ನಿ ದುರಂತದ ಬಗ್ಗೆ ಪ್ರಧಾನ ಅಭಿಯಂತರರು, ಬಿ.ಬಿ.ಎಂ.ಪಿ. ರವರು ಸಲ್ಲಿಸಿರುವ ತಾಂತ್ರಿಕ ಪರಿಶೀಲನಾ ವರದಿಯ ಹಿನ್ನೆಲೆಯಲ್ಲಿ ಸುರಕ್ಷತಾ ಕ್ರಮಗಳನ್ನು ಕೈಗೊಂಡು ಮುಂದೆ ಇಂತಹ ಅಗ್ನಿ ಅವಘಡಗಳು ಸಂಭವಿಸದಂತೆ ಕ್ರಮವಹಿಸಲಾಗುತ್ತಿದೆ.</p> |
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ಸಂಖ್ಯೆ: ನಅಇ 450 ಎಂಎನ್‌ಯು 2023 (ಇ)

  
(ಡಿ.ಕೆ. ಶಿವಕುಮಾರ್)  
ಉಪ ಮುಖ್ಯಮಂತ್ರಿ

B-2023-24-1

**TECHNICAL REPORT TOWARDS THE FIRE ACCIDENT  
OCCURRED ON 11.08.2023 IN QUALITY ASSURANCE  
LABORATORY INSIDE THE PREMISES OF BBMP HEAD OFFICE**

Ret. Hon'ble Chief Commissioner, BBMP office order No BBMP/CC/PR  
118/2023-24, dated:11.08.2023

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With reference to the above subject, the Quality Control Laboratory established by BBMP was inspected by the undersigned on 14.08.2023. On careful examination of the laboratory, the laboratory is equipped to conduct test pertaining to asphalt works and concrete works. The southern side of the laboratory is housing the bitumen work related test equipment's and the northern part of the laboratory is housing the equipment's to conduct tests related to concrete works.

The mandate of this technical enquiry is to find out the infrastructural concerns of the laboratory established by BBMP.

Smt Yamuna, Chief Engineer(I/c), Quality Assurance was given the task of providing information of the test that was being conducted on 11.08.2023. The Chief Engineer, QA along with the other engineers submitted a detailed report on the chemical being used for dislodging bitumen from the bituminous mix. They have categorically stated that, benzene was being used for bitumen content extraction test vide IRC, SP:11-1984. The extract of the IRC, SP:11 is produced as below:

**C. METHOD OF TEST FOR BINDER CONTENT FOR PAVING  
MIXTURES BY CENTRIFUGE.**

The test is intended for determination of binder content in the mix by cold solvent extraction. The mineral matter recovered from the test can be used for checking the gradation of the aggregates in the mix.



A representative sample about 100 gm is exactly weighed and placed in the bowl of the extraction apparatus and covered with commercial grade of benzene. Sufficient time (not more than 1 hour) is allowed for the solvent to disintegrate the sample before running the centrifuge.

The filter ring of the apparatus is dried, weighed and the filter placed around the edge of the bowl. The cover of the bowl is clamped tightly. A bucket is placed under to collect the extract.

The machine is revolved slowly and then gradually, the speed is increased to a maximum of 1000 r.p.m. The speed is maintained till the solvent ceases to flow from the drain. The machine is allowed to stop and 200 ml of the benzene is added and the above procedure is repeated.

A number of 200 ml solvent additions (not less than three) are used till the extract is clear and not darker than a light straw colour.

The filter ring from the bowl is removed, dried in air and then in oven to constant weight at 115°C, and weighed. The fine materials that might have passed through the filter paper are collected back from the extract perfectly by centrifuging. The material is washed and dried to constant weight as before. The percentage of binder in the sample is calculated as follows:

$$\text{Percentage binder in the total mix} = \frac{M_1 - (M_2 + M_3) + M_4}{M_1} \times 100$$

where

$M_1$  = weight of sample

$M_2$  = weight of the sample after extraction

$M_3$  = weight of fine material, recovered from the extract

$M_4$  = increase in weight of the filter ring

In the case of road tar which is not completely soluble in benzene, necessary correction is made on the basis of the percent insoluble of the road tar in the solvent.

The Chief Engineer, QA has also informed that, proper training through external faculty member was arranged and have produced geo-stamped photographs showing the "Training Sessions" being conducted to the staff involved in QA activities in the laboratory. (The report of the CE(QA) is enclosed as Annexure-A)

By the above evidence it can be understood that, the engineers in the quality control lab were aware of the Standard Operating Procedure (SOP) for conducting the bitumen extraction test in particular.

The Chief Engineer, QA has also informed in the report that, Sri Anand G, AEE was supervising the tests being conducted on the sample of the bituminous concrete mix collected pertaining to the work of asphaltting to roads in Basavanagudi sub division, Basavanagudi Assembly Constituency. Sri.Suresh, Class-4 Employee was with Sri.Anand.G assisting in the said tests.

On questioning the Sri.Anand.G, AEE and Sri.Suresh, Class-4 employee separately it was found that, both Sri.Anand.G was well-versed with conducting

the bitumen extraction test and Sri.Suresh in assisting the physical work like operating the manual centrifugal pump and arranging the basin inside the centrifugal pump

After detailed enquiry it is found that, the SOP and the methodology of heating the bituminous mix sample was deviated. Electric stove was being used to soften the bituminous mix and open fire was being adopted for drying and separating the aggregate mix and residual benzene from the bituminous mix.

The IRC SP:11-1984 categorically indicate that, the usage of oven for softening, drying and separating the aggregate mix and residual benzene. The usage of open fire may be the primary cause for the accident occurred in the laboratory.

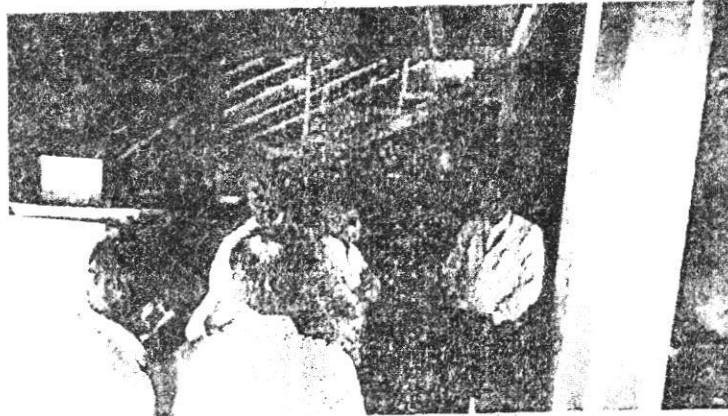
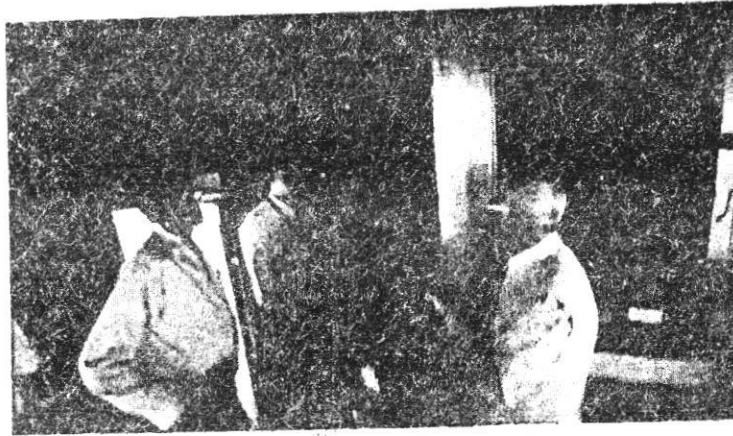
#### Comments on Laboratory Infrastructure:

Dr.K.N.Subramanya, Principal, RV College of Engineering and Dr.Anjaneyappa, Assistant Professor, RV College of Engineering were contacted for Evaluation and for Expert opinion of the BBMP laboratory situated in BBMP head office premises. The team lead by Dr.K.N.Subramanya, Principal, RV College of Engineering and Dr.Anjaneyappa, Assistant Professor, RV College of Engineering visited the premises on 08.09.2023.

The photographs showing the visit made by the Principal is as below:



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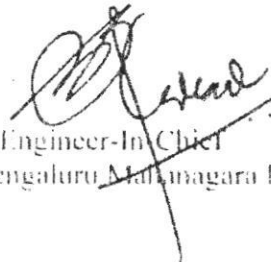
The Experts jointly opined that, the laboratory is housed in a very small space and is not adequate as per standard specifications. They informed that, there should be circular space around each equipments for each person working on the equipments during conducting the tests. In the present instance they opined that, the equipments in the laboratory are cramped and there is not even lateral space between the two equipments for a person to handle the equipments properly.

The experts also opined that, the mezzanine floor constructed out of steel fabrication over the laboratory is an ill-conceived idea. It was also opined that, the height of the laboratory roof should have a minimum height of 3.75m to 4.0m (12ft to 14ft) with cross entries and ventilation

The experts opined that, small windows have blocked the free passage of smoke that has erupted due to fire. They concluded that, the laboratory should be immediately disused.

**Conclusion of the Report:**

1. The laboratory situated in the BBMP head office premises, may be disused and new laboratory block may be constructed within the head office premises in the space available in front of "Naukara Bhavana".
2. The ground floor and the mezzanine floor may be used as "Office Space". The windows which are 1.2m x 1.2m of size may be altered to minimum 1.8m x 1.2m.
3. The equipments in the laboratory are in very good condition and laboratory block should be constructed so as to re-install the available equipments without any damage.

  
Engineer-In-Chief  
Bruhat Bengaluru Mahanagara Palike

15/9/2022