NAVODAYA VIDYALAYA SAMITI (CONSTRUCTION WING)

No.F. 1-2/2006-NVS(GM)

28th March 2007

To,

The Principals
All Jawahar Navodaya Vidyalayas

Please find enclosed revised guidelines for Maintenance and Repairs of various buildings including Staff Quarters in JNVs (Attachments enclosed). All Principals are requested to go through the guidelines and implement it with immediate effect. Any suggestions for further improvement can be sent at the email skjain15758@rediffmail.com.

This issue with the approval of the Commissioner, NVS.

Yours faithfully

(S.K. JAIN) GENERAL MANAGER(CONST.)

Copy to:

1. The Dy. Commissioner, NVS, All R.Os

2. The Asstt. Commissioner, NVS, All R.Os

3. All Executive Engineers, NVS, All R.Os

All officers are requested to monitor the annual maintenance plan of the vidyalaya during their visit to JNVs.

- 4. All EEs/NVS/(HQ)
- 5. PS to Commissioner for kind information of commissioner

GENERAL MANAGER(CONST.)

CIRCULAR

Dated:19.03.2007

Sub: Improvement in Maintenance and repairs in Jawahar navodaya Vidyalayas.

1. General

Jawahar Navodaya Vidyalayas are the finest example of collective effort at national level for providing quality education to deserving rural poor in India. The JNV buildings constructed in remote areas are being provided with best facilities and infrastructure. The Maintenance of the vidyalaya complex is of paramount importance in order to provide suitable environment to the resident students. If a property is not maintained properly, it will deteriorate very fast.

Appreciable efforts have been made by some of the Principals and Regional Offices for improvement in maintenance of the JNVs. These efforts have yielded good results in some JNVs. However, the efforts need to continue with the unending zeal. Concrete steps need to be taken by all concerned. Especially, the JNV Principals must take lead in improving the maintenance and upkeep of JNVs.

184th Parliamentary Standing Committee on NVS has emphasized that there is an urgnt need to make serious attempts for improving maintenance and upkeep in JNVs. Examples of dirty toilets, clogged sewers, drains and shabby interior/exterior of the JNV buildings have been cited by the Parliamentary Committee. This certainly does not reflect well on the performance of the officers/staff responsible for proper maintenance and upkeep of the vidyalayas. Samiti has taken several initiative to empower Principals so that desired improvement in maintenance standard could be achieved (Refer Para 3.2, 3.3 & 3.4).

2. Type of maintenance

The maintenance works can be broadly divided into following four categories.

- a) Day-to-day maintenance.
- b) Preventive Maintenance.
- c) Special repairs and
- d) Emergency repairs.

2.1 Day to day Maintenance

Day to-day maintenance is absolutely essential. It consists of the following Items:-

- Maintenance water supply scheme, running pump set, treating water and storing water in UG tanks/OH tanks etc. Principal shall ensure that water shall be free from harmful bacteria/organisms & get the water tested from a reputed laboratory atleast once a year to determine dosage of bleaching powder to eliminate all harmful bacteria/organism. Normally the dosage of bleaching powder varies from 150 grams to 400 grams per 1,00,000 ltrs. Of water. In case the water is not potable, it should be got tested and recommendations of district health officer should be obtained regarding type of treatment required. Proposal/estimate of water treatment plant should be provided to NVS, RO/HQ.
- ii) Attending to leakages in pipelines, taps and other fittings on immediate basis
- iii) Cleaning of chocked sewer lines, bathrooms, toilets etc. on immediate basis
- iv) Replacement of damaged water supply, sanitary and electricity fittings such as taps, tube lights, bulbs, fuse wire, switches, chocks/starters etc. on immediate basis

- v) Running/maintenance of generator set (As per manufacturer's manual/specification)
- vi) Maintenance of Rajiv Gandhi Smriti van and grass/flower plants in and around buildings
- vii) Any other item, if found essential.
- viii) The Principal shall ensure that day today maintenance is carried out most efficiently and immediately to avoid any inconvenience to occupants & damage to the properly and to keep the complex neat and clean.

2.2. Preventive Maintenance

The purpose of preventive maintenance is to increase the life of buildings, reduce day to-day repairs and complaints.

This include such works, which are to be carried out compulsorily either annually or periodically. The pettey repairs are also covered in the preventive maintenance. It generally consists of following items:-

- a) Annual white washing and painting of buildings
- b) Painting of steel doors and windows
- c) Cleaning of water storage tanks on roofs
- d) Cleaning of storm water drains, septic tank manhole, gully chamber etc.
- e) Cleaning of bushes around the building after rainy season
- f) Inspection of roofs before rainy season and removing blockage of drain pipes if any to avoid seepage from roof
- g) Repair of frames & shutters of doors & Windows.
- h) Annual inspection of all buildings for cracks, seepage, settlement of floors etc.
- i) Repair of floors, plaster, roof-tiles/routing etc.
- j) Attending roof leakages/seepage.
- k) Maintenance of electrical fittings & fixtures.

2.3. Emergency Maintenance (Break down maintenance)

This includes such works, which need to be attended urgently.

- a. Absence of water supply
- b. Chocking in sewer lines and manholes
- c. Choking in internal sanitary fittings
- d. Repairing of DG set etc.
- e. Replacement of tubewell pump. Vidyalaya should have one standby pump set. In case, tubewell pump out of order, it should be replaced by the stand by pump immediately.
- f. Repair of electrical panels.
- g. Repairs of transformers.

2.4 Special repair works

As the building ages there is deteriorations of the various parts of the buildings & services. Therefore major repairs, renovations & replacement of various items become inevitable. Major maintenance or special repair generally include following type of works in buildings.

- a) Replacement of flooring
- b) Recarpeting of internal roads
- c) Replacement of water distribution/Sewage lines
- d) Replacement of water proofing.
- e) Replacement of electrical wiring.
- f) Partial replacement of roofing
- g) Replacement of plaster to walls..

The day-to-day, preventive & Emergency maintenance as defined in para-2.1, 2.2 & 2.3 above shall be carried out by the JNV Principal out of allocated funds of Rs.3.00 lacs for CPWD pattern and 4.5 lacs for CBRI pattern. However, need for special repair works shall be reported by the JNV Principals to the concerned, EE/RO, who shall visit the JNV & proper case with full justification along with detailed estimate shall be put up to NVS(HQ) for approval. The special repairs generally involve relatively larger amount of money hence shall be got executed through Govt. deptt/undertaking since adequate technical staff is not available in the Samiti for day to-day supervision.

3. Guidelines and procedures of maintenance

It is the responsibility of the Principal to carry out day to day, preventive & emergency maintenance of all the buildings like school building, dormitories, staff qtrs., Kitchen/Dining hall, play fields & related services out of the annual maintenance funds allocated to them, as per procedure laid down below: -

- 3.1. The practice of appointing of Govt. const. agencies for maintenance activities has not yielded desired results due to preoccupation of Govt. departments with major works. They are not able to pay adequate attention to smaller maintenance works. This results in poor maintenance of vidyalayas apart from cost & time over run, hence in future maintenance works shall not be assigned to Govt. Departments.
- 3.2. The maintenance works shall be carried out by the Principal by purchasing required materials & hiring labour/petty contractor. This system would not only be cost effective but Principal shall have full control on the maintenance activities..
- 3.3. In order to facilitate the purchase of materials and hiring service of labour/ petty contractors, the purchase procedures have been simplified vide letter no. 3-9(2)/920-93-NVS(F&A) vol-3 dated 5.1.06. As per the new guidelines, Principals shall be able to procure materials/services upto Rs.50,000/- (each item on each occasion) on quotation basis without newspaper advertisement.
- **3.4.** As per the earlier guidelines, there was a ceiling of Rs.1.00 lac for minor repairs and Rs.2.00 lacs for white/colour washing. However, as per feed back given by the D.C./Principals, sub-head wise, ceiling has been withdrawn and the Principal is empowered to spend the maintenance funds as per the need of the

vidyalaya. The guidelines in this regard has already been circulated vide letter no. 1-2/2004-NVS(GM) dated 17.10.2005.

3.5. The Principal shall ensure that funds allocated for M & R should be spent on maintenance activities only. It shall not be used for other activities like purchasing furniture, construction of rooms, garage, raising the height of boundary wall etc.

4) Management of Maintenance works:-

4.1. A Maintenance and repair committee shall be constituted in each JNV with following composition to identify the maintenance needs of the Vidyalayas.. The Maintenance & Repair Committee will monitor the implementation and execution of maintenance & repair activities in the school. The M & R. Committee will consist of:

a) The Principal
 b) Vice Principal/Senior teacher/SUPW Teacher
 c) Two house Masters (1male & 1 female)
 d) School prefect (one boy & one girl)
 e) One P.T.C.
 Chairman
 Member
 Member
 Member
 Member

M&R Committee shall seek the technical guidance, if needed, from Executive Engineer, State PWD/Executive Engineer, NVS, RO.

The Committee will meet at least once in three months to review the M & R. requirements and verify the works undertaken including consumption of labour and material. Proceedings of the Committee will be maintained in buildings register which should be available for Inspection. The Members at S.No. a,b & c will be rotated every year. The constitution of Committee shall be recorded in the building register.

- **4.2.** An Official who shall be Vice-Principal/Senior Teacher/SUPW Teacher shall be designated by the Principal who shall coordinate and will be over all incharge of the maintenance works.
- **4.3.** For day-today maintenance work, following labour shall be deployed by the Principal as and when needed on contract basis/daily wages prevailing in the district.:
 - a) Plumber.
 - b) Electrician cum-pump operator.
 - c) Sewer man.
 - d) Sweeper.
 - e) Mason/Carpenter & Belder as and when needed.
 - f) Mali/Gardner.

If any category of labour has already been employed by the Prncipals, such as Electrician/Plumber and helper etc., then, that category of labour shall not be engaged from outside on contract/daily wages.

- 4.4. For day -today maintenance, Principal shall procure and maintain necessary stock of required material, like Tube light, bulbs, switches, Fues, Screws, Taps, Sanitary fittings, Electrical wires, etc. The quantity shall be so procured that they will not exceed the consumption of 3-4 months. All the material shall be procured as per guidelines prescribed in the purchase procedure and proper item wise account register shall be maintained.
- 4.5. A complaint register shall be placed in each house (Boys & Girls) and staff room in which all maintenance related complaints shall be recorded by the students like to shortage of water, up-keep of the toilets, cleanliness of the dormitories, defective electric fittings and any other issues related to furnitures & fixtures etc. The House masters/mistresses shall see the complaint register on day to-day basis and coordinate with the maintenance incharge for rectification of complaints. It shall be the duty

of House Master/Mistress to ensure that the complaints recorded is rectified. The House Master/Mistress shall make necessary entry in the complaint register about the date of rectification of complaint alongwith his/her signature.

- 4.6. Similarly, teachers/staff shall record the maintenance related complaints of the staff quarters in the complaint register, which shall be kept in the staff room of academic building. Maintenance in-charge shall be responsible for rectification of complaints of staff residences who shall make necessary entries about the date of rectification with his remarks if any, in the complaint register.
- 4.7. The complaint register shall be reviewed by the Principal on monthly basis and by M&R Committee on quarterly basis to ensure that all the complaints recorded by the students /teachers are rectified.

5. <u>Management of Preventive Maintenance:</u>

The preventive maintenance are carried out as a matter of routine (annually/periodically) and as per specific need of the Vidyalaya. It can be broadly classified into two parts –

5.1. Compulsory Maintenance:-

It shall be carried out as per predetermined schedule like Annual White Wash, Painting of doors & windows, cleaning of Septic tank etc. as per annual maintenance plan enclosed at **Annexure -A (Page 11-14)**. The Principals shall ensure that the compulsory maintenance is carried out as per time schedule given in **Annexure A**.

5.2. Need based preventive maintenance:

The M & R Committee shall inspect all the buildings like academic block, boys & Girls dormitories, residential quarters, dining hall, external services, play fields and electrical installation etc. from 1-15 April every year and shall prepare building-wise annual maintenance plan as per proforma enclosed at Annexure B (Page 15-16). M & R Committee shall prioritize the activities in annual maintenance plan depending upon need/urgency of the items required to be executed. Approximate time frame against each activity shall be mentioned in the Annual Plan.

Annexure 'C' (Page 17-20) provides some common maintenance problems & their suggested remedies.

5.3. The procedure for procurement of material and engaging labour to carry out the preventive maintenance shall be similar, as described in **para - 3.3.**

6. Management of Emergency maintenance:-

An amount of Rs.10.00 lacks per annum is being released to each Regional Office. This amount is basically to facilitate R.O. to see the immediate shortcomings especially in terms of facilities like emergent repairs/replacement of transformers, new procurement /replacement of materials like water pumps, reboring of tube wells, improvement of kitchen and toilets and urgent repair of D.G. sets etc. This work shall be taken up by the Principal on war footing so that functioning of the Vidyalaya may not suffer.

7. Monitoring of the Maintenance Activities:-

7.1. M & R Committee shall meet once in three months and monitor the complaint register, implementation of Annual Maintenance Plan(Compulsory as well as Need based). All J.N.V Principals shall send half-yearly status report of annual maintenance plan to D.C./E.E. RO.

- **7.2.** All visiting A.Cs/E.Es., RO, shall monitor status of complaints register, annual maintenance plan in the Vidyalaya and satisfy themselves that the maintenance work is being carried out as per annual maintenance plan and complaints recorded in the register are being attended.
- **7.3.** The matter shall be brought to the notice of GM(C) /D.C. of ROs. concerned in case annual maintenance plan is not being implemented as per schedule.

The above guidelines are to be followed strictly by all concerned. Efforts have been made by some Principals, which deserves appreciation, but lot still needs to be done to ensure that JNVs are maintained properly and satisfaction to the users.

ACTION PLAN FOR COMPULSORY MAINTENANCE IN JNVs

Annual and Routine maintenance activities in JNVs compulsorily to be done at JNV level.

S.No	Item/Activity	Frequency	Action Plan (Target dt. Of	Status			Remarks of visiting	
			completion)	Q 1	Q2	Q3	Q4	officers
1.	General							
1.1	White/colour washing in all buildings, boundary wall and main gate Exterior Finish: In CBRI design JNVs – acrylic emulsion (polymer based) is to be done once in five years (buildings can be clubbed in groups to cover entire campus in 2-3 years) as already circulated vide letter No.1-4/2004-NVS(GM) dated 11.8.06 CPWD design JNVs have permanent grit wash finish. Interior walls: Class rooms, kitchen/dining, dormitories – White/Colour Wash: School bldg., Principal/CP/Staff room, Library, Computer labs – oil bound distemper Staff Quarters – Acrylic oil bound distemper (except kitchen & bathroom) where whitewashing will be done. Note: Whenever a staff member occupies a residential quarter, oil bound distemper shall be got done from M&R works.	Every year	Before start of new academic session i.e during summer vacation					
1.2	Painting of doors, windows, staircase railings etc. (Dorm. in first year, S/B, K/D and Staff quarters subsequently in second year)	Every two years	Before start of new academic session i.e during summer vacation					
1.3	Cleaning and disinfection OHT/UGS, Roof top tanks	Every six months	Before start of new academic session i.e during summer vacation and after rainy season					
1.4	Cleaning of septic tanks, manholes, gully, traps, sewer lines, drains. Clearing playfields and areas around buildings of debris, minor dressing up, removing grass/vegetation, repair of basketball poles/boards, net etc.	Every year as routine and SOS	Before start of new academic session i.e during summer vacation					

S.No	Item/Activity	Frequency	Action Plan	Statu	1S			Remarks
			(Target dt.)	Q 1	Q2	Q3	Q4	of visiting officers
1.5	Cleaning of roofs, Khurras (rain water outlets).	Six months	Before rainy season and not later than 30 th June.					
1.6	Checking of fire extinguishers, replacing/refitting expired ones, repainting &refitting of sand buckets	Every year	Before start of new academic session i.e during summer vacation					
1.7	Re-Painting of blackboards	Every year	Before start of new academic session i.e during summer vacation					
1.8	Minor repairs on roofs and parapets such as filling of cracks, using mortar mixed with water proofing compounds such as refilling of joints with mortar, Gola/Khurra repair	Every year	Before start of new academic session i.e during summer vacation (Before rainy season)					
1.9	Replacmentl of broken window glases, wiremesh in doors/windows.	Every year	Before start of new academic session i.e during summer vacation					
1.10	Minor routine repairs of doors/windows such as replacement of missing/ damaged handles, hinges, cleats, tower bolts of doors/windows.	Every year	During summer vacation					
1.11	Water to be tested for potability from a reputed govt. lab.	Every six months	Before end of summer vaca-tion and after rainy season					
1.12	Students to be advised not to use polythene and other non-biodegradable materials. Dumping of such materials, especially in toilets, kitchen, dining hall etc., must be prohibited. No solid waste should be dumped near the buildings. A separate bin is to be made for this. Kitchen waste should not be mixed with garbage and it should be dumped separately in compost pit.							

S.No	Item/Activity	Frequency	Action Plan (Target dt.)					Remarks of visiting
				Q 1	Q2	Q 3	Q4	officers
2.	Electrical							
2.1	Repair/replacement of defective switches /fan regulators/tube lights/bulbs/streetlights/ fans/switch boards/MCBs etc.	Every year and when- ever required urgently	Before start of new academic session i.e during summer vacation and whenever required urgently					
2.2	Resetting/replacement of loose electrical wires/cables, taping of naked wires, cables etc.	Every year and whenever required urgently	Before start of new academic session i.e during summer vacation and when-ever required urgently					
2.3	Cleaning of fans, Checking of fans for sound/noise/loose support/blades/Canopy switch boards etc.	Every year	Before start of new academic session i.e during summer vacation					
2.4	Lubrication, checking, preventive repairs of water /sewage pumps/DG sets.	Every month	Ist week of every month					
2.5	Checking of different electrical points in all buildings for proper earthing	Every six months	30 th June & 30 th December					
3.	Rajiv Gandhi Smriti Van	1	1					1
	a) Remaking watering pits of trees, manuring, weeding and pruning.	Every 3 months	Just after summer vacation & every qtr. thereafter. During rainy season.					
	b) Planting of new saplings in consultation with Horti- culture department of State Govt. and Forest Department.	Every year						
4.	Safety, Security Aspects							
4.1	Boundary wall and fencing is to be checked for damages/ breakage. Locability of main gate must be ensured. Lightning conductors of overhead tanks must be restored if damaged.							

S.No	Item/Activity	Frequency	Action Plan		Sto	itus		Remarks
			(Target dt.)	Q 1	Q2	Q 3	Q 4	of visiting officers
4.2	Fire safety/fighting drills to be conducted in the JNVs half yearly.	Half yearly	At the beginning of academic session and then after six months.					
4.3	Compulsory announcements must be made by the Principal and House masters in the Assembly and respective houses every month, regarding Safety and Security Precautions to be taken by students such as:	Monthly	Ist week of each month					
4.3.1	Students need not go to the roofs. Staircase leading to the roof should be locked and the keys should be with the House Master.							
4.3.2	The first flight of staircase leading to the container dome of overhead tank should be removed to make it inaccessible to the students.							
4.3.3	Students should be advised not to tamper with electrical switch boxes, wiring, fans, fittings etc.							
4.3.4	Water should not be allowed to stagnate around buildings to prevent epidemics.							
4.3.5	Students should be advised to remain away from underground sump and open wells in the JNV campus. The open wells should invariably be covered with lockable grills.							
4.3.6	Notice Boards pronouncing above points in bold should be displayed in academic block and dormitory's entrance halls.							

ANNUAL MAINTENANCE PLAN (VIDYALAYA SPECIFIC)

Schedule for inspection of Buildings by M&R Committee

- a. Name of Buildings:
- b. Date of last Inspection:
- c. Date of present Inspection:

S.No.	Item	Location	Brief description of defects if any.	App. Time- frame for rectification	Remarks
1.	Walls	•		•	•
1.1	Repair of Plaster				
1.2	Dampness				
2.	Floors				
2.1	Cracks in flooring				
2.2	Settlement of floors				
2.3	Damaged/sunken plinth protection				
2.4	Worn out floor panels				
3.	Doors, Windows, Ventilators & Cup boards				
3.1	Door shutters broken/damaged				
3.2	Doors fit improperly				
4.	Roofs				
4.1	Leakages/Damp patches				
4.2	Water proofing treatment needing repairs				
4.3	Golas, Khurras, Rain water pipes/spouts				
4.4	Parapets, copings, Chajjas needing repairs				
5.	Water supply & sanitary fittings				
5.1	Leakages in pipe joints				
5.2	Replacement of broken WC seat, wash basins				
5.3	Flushing cisterns, sanitary pipes, fittings and				
	fixtures.				

S.No.	Item	Location	Brief description of defects if any.	App. Time- frame for rectification	Remarks
6.	External Services	•			•
6.1	Manhole/gully trap covers				
6.2	Approach roads/ pathways				
6.3	Storm water drains				
7.	Common Areas				
7.1	Railing to staircase				
7.2	Staircase steps, nosing				
8.	Electrical Works				
8.1	Naked/loose wiring needing immediate				
	repairs, Damaged/old wiring needing				
	rewiring				
8.2	Damaged electrical distribution boards,				
	panels & switch boxes/boards, Fuses/MCBs				
8.3	Fans needing rewinding and other repairs				
8.4	Street lighting/poles/ cables/ control boxes.				
8.5	Sagging/loose overhead cables in the				
	campus to be retightened.				
8.6	Repair of generator sets, if out of warranty				
	period				
8.7	Old water/sewerage pumps (i/c standby)				
	needing replace-ment/major repairs.				

COMMON MAINTENANCE PROBLEMS AND THEIR SUGGESTED REMEDIES

1. PROBLEMS OF WASTE WATER/SEWERAGE DISPOSAL SYSTEM

- 1.1 Overflowing of septic tanks and soak pits causing foul conditions.
- 1.2. Choking of sewer lines, manholes etc.
- 1.3. Leakage from toilets at first floor.

SUGGESTED REMEDIES

- Waste water from kitchens/bathrooms should not be allowed to mix with sewage from toilets. Septic tanks should take the sewage water discharge exclusively. The waste water from kitchen and bathrooms should be disposed off separately through open surface drains along with the rain water.
- Where the absorption capacity of soil is less, soak pits will not be successful.
 The following alternative disposal methods may be considered.
 - i. Efforts should be made to connect the outlet of septic tanks to natural drains passing through/adjoining the Vidyalaya campus wherever feasible.

Alternatively

- Soak pits should be replaced by dispersion trenches for better absorption of water.
- ii. Annual cleaning of complete sewer lines and manholes must be undertaken by the Principals. Normally, the cleaning process is initiated only after choking of sewer lines which is not a good practice.

- iii. The septic tanks must be got cleaned once an year by the Principals.

 In case, the need arises, intermittent cleaning may also be undertaken.
- iv. Broken or leaking soil waste pipes should be immediately attended to by the Principals.
- 3. In case of leakage from WCs of first floor toilets, replacement of WC seats and trap/seal may be required. The sunken portion is required to be exposed, new WC seats may be provided after adequate water proofing treatment in the sunken portions.

BAD CONDITION OF TOILETS/BATHS (especially CBRI Design) Reasons

- 2.1 Failure of sewage disposal system as elaborated in preceding para.
- 2.2 Apart from the failure of sewage disposal system, it has been observed that the general condition of toilet portions in dormitories as well as academic buildings is very dismal. The condition is quite alarming in most of the Vidyalayas with toilet portions badly stinking. The main causes of the unhygienic conditions of toilets is the <u>ABSENCE OF ADEQUATE WATER SUPPLY</u> in the toilets. It is due to the following reasons.
 - i. Terrace tanks are non-functional in many cases. The basic concept of gravity water distribution is not being followed. Either the broken terrace tanks have not been replaced or the pipeline network is nonfunctional.
 - ii. Wastage of water through leaking taps, valves & fittings.
 - iii. Non-functional cisterns.

NOTE: In most of the cases, there is no shortage of water availability. Adequate water is available but the problem is of non-maintained internal water distribution system.

Other causes of unhygienic conditions of toilets are:

- a) Broken doors.
- b) Proper cleanliness not maintained by the sweeper.
- c) Broken WCs and other fittings.
- d) Reverse slope in bathrooms.
- e) Dirty mosaic dados.
- f) Damaged condition of flooring.

Remedial Measures

- 1. Restoration of proper water distribution system including making functional of terrace tanks.
- Immediate replacement of broken taps, valves, cisterns and water supply fittings.
- 3. Strict monitoring of sweeper for ensuring general cleanliness.
- 4. Repairs/Replacement of broken doors.
- Comprehensive Renovation of toilets through special repairs in a phased manner.

3. SEEPAGE/LEAKAGE FROM ROOFS OF BUILDINGS

<u>Causes</u>

- 3.1 Blocked Khurras due to non-cleaning of roofs.
- 3.2 Leakage due to blocking of spout pipes in chajjas.
- 3.3 Seepage through walls at the joints of chajjas.
- 3.4 Cracks in parapet walls and coping.
- 3.5 Leakage from joints of rain water pipes.

- 3.6 Overflow from terrace tanks due to inadequate overflow pipe arrangement.
- 3.7 Leakage from water supply fittings of terrace tanks.
- 3.8 Lack of proper treatment of expansion joints.
- 3.9 Improper finishing of grooves in grit plaster.
- 3.10 Damaged and old mud phuska/lime terracing roof treatment.

Remedial Measures

- 1. Cleaning of all roof and chajjas must be ensured once in six months and before on-set of monsoon.
- The parapet walls and coping of buildings are often not given due attention. The damages to plaster must be repaired and cracks in coping should be plugged using cement mortar mixed with water proofing compounds such as TAPECRETE.
- 3. In case of leakage from joints of chajjas, cement concrete gola should be provided and the top surface of chajjas should be graded for proper slopes.
- 4. Overflow pipes of size 1.5 times the inlet pipe extending upto the khurras must be provided.
- 5. All leakages from joints of water supply fittings of terrace tanks and rain water pipes must be attended.
- 6. In case, the water proofing roof treatment is in a damaged condition beyond repairs, replacement of the same by crick coba treatment is necessary.

ANALYSIS OF RATES POLYMER BASED EXTERIOR EMULSION Based on CPWD DAR Item No.13.79.2 TO BE DONE FOR FINISHING OF EXTERNAL WALLS IN CBRI DESIGN JAWAHAR NAVODAYA VIDYALAYAS

Item No.	Description	Unit	Qty.	Rate Code	Cost Rs.	Remarks
13.79.2	Old work (two or more coats)					
	Details of cost for 10 sqm.Polymer based acrylic emulsion	Ltr.	2.00	150 (M.R)	300.00	
	Carriage of materials	1 time	0.35	1.66	0.58	
	Putty, Brushes etc.	1 time	2.75	1.66	4.57	
	Labour					
	Painter	Each	0.33	110	36.30	> 111.71
	Coolie	Each	0.17	93	15.81	
	Bhisti	Each	0.50	94.40	47.20	
	Sundries, brushes, sand papers etc.	1 time	3.10	1.66	5.15	
	Scrapping of existing colour wash				2.10	
					411.71	
	Add cost index of Delhi 223-166/166 = 34.34% on Rs. 111.71				38.32	
					450.03	
	1% water charges				4.50	
	10% for contractors profit and overheads				45.40	
					499.93	
	Add for primer L.S				50.00	
					549.93	

Say Rs. 550/10 sqm or **Rs. 55/sqm.**



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NAVODAYA VIDYALAYA SAMITI

(An Autonomous Organization of Ministry of Human Resource Development), Govt. of India

(Deptt. Of Higher & Secondary Education)

Dated: 11.08.2006

A-28 Kailash Colony, New Delhi-110 048

No.F. 1-4/2004-NVS(GM)

CIRCULAR

Sub: - Exterior finishing in CBRI design JNV Buildings.

The CBRI design JNV buildings need face lifting to improve the ambience in the premises of the Vidyalaya. The allocation of funds for annual repairs and maintenance of CBRI design JNVs has already been raised from previous Rs. 3.00 lakhs to Rs. 4.50 lakhs per annum vide circular NO.F.1-2/2004-NVS(GM) dated 17.10.05.

The enhanced allocation of funds is to be used in improving the external finishing of JNV buildings constructed on CBRI design. It has been decided that instead of providing colour wash on the exterior walls, <u>polymer based exterior emulsion</u> such as Berger Weather Coat, Asian Apex, Shalimar Extra ICI Dulux Weather Sheild shall be used henceforth. <u>It has to be ensured that the exterior emulsion used is polymer based and not water based.</u>

RATE

The approximate rate of the complete item works out to Rs. 55/- per sqm for two or more coats after scrapping the existing colour wash. A model analysis of rates is being attached herewith for guidance. <u>Care should be taken that this rate is not used for payment to the agencies since</u> the analysis is based on retail price of exterior paint. Generally, the rates for large quantities on lower side due to discount.

The Area statement showing the external area of various buildings was circulated vide circular No.F.1-2/94-NVS(GM) dated 12.10.99. A copy of the same is being enclosed for ready reference.

MODE OF EXECUTION

The work of exterior emulsion is not to be got done through the construction agencies. Instead, the Principal may procure the required quantity of materials and get the work done by engaging casual labourers in consultation with Deputy Commissioner/Executive Engineer of Regional Offices. The actual deployment of labourers and consumption of materials should be commensurate with the theoretical requirements. The analysis of rates enclosed which is based on CPWD analysis of rates (item No. 13.79.2) will serve as a rough guide in working out these requirements.

FREQUENCY

The frequency of application of the finish shall be once in five years. The JNV buildings in which exterior emulsion finish is to be provided may be staggered over 2/3/4 years as per need of the particular JNV.

The above guidelines may be implemented immediately in all CBRI design JNVs.

(S.K.JAIN) GENERAL MANAGER (CONST.)

Copy to:

- 1. PS to Commissioner, NVS for kind information.
- 2. JC (Admn.), NVS(HQ)
- 3. All Deputy Commissioners of Regional Offices | They are requested to
- 4. All Executive Engineers of Regional Offices | Circulate this to all Principals in their region
- 5. All EEs/AE of NVS(HQ)
- AC (Fin.), NVS(HQ)
- 7. AC (Audit), NVS(HQ)

GENERAL MANAGER (CONST.)

Tel. Fax No.: 29244164 Tele No.: 29244152,55, 58

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NAVODAYA VIDYALAYA SAMITI

(An Autonomous Organization under Ministry of Human Resource Development, Department of Secondary & Higher Education, Government of India) A-28, Kailash Colony New Delhi – 110 048

F.No. 1-4/2004-NVS(GM)

4th December 2006

CIRCULAR

Sub: Exterior finishing in CBRI design JNV Buildings

Please refer to letter no. 1-4/2004-NVS(GM) dated 11.08.06 (Copy enclosed) wherein it was decided that maintenance budget of CBRI design JNVs has been increased from Rs.3.00 lacs to Rs.4.50 lacs to improve the exterior of buildings in a phased manner by providing polymer based exterior emulsion such as Berger Weather Coat, Asian Apex, ICI Dulux Weather coat etc. However, it has come to our notice that above instruction are not being implemented, which would defeat the purpose of increasing the maintenance budget.

Kindly ensure that above instructions are followed strictly by all JNV Principals and quarterly report in this regard may please be sent to this office indicating no. of JNVs where above specifications have been adopted. E.E./NVS/RO during their visit to JNVs should also discuss & explain to the JNV Principals about circular/specifications.

(S.K. JAIN)
GENERAL MANAGER(CONST.)

Copy to:

- 1. The E.Es, NVS, all Regional offices
- 2. All EEs/AE/SO(C)/NVS(HQ) for necessary follow up & report on quarterly basis.



Ph:26424152-58 Fax: 26424151
NAVODAYA VIDYALAYA SAMITI

(An Autonomous Organisation of Ministry of HRD) Department of Higher & Sec. Edn. Illrd Floor, Construction Wing

A-28, Kailash Colony, New Delhi-48

No.F.1-2/2004-NVS (GM)

Dated: 17. 10.2005

Sub:- Maintenance/repairs and special repairs in Jawahar Navodaya Vidyalayas.

Following the discussions during Deputy Commissioners' conference on 26.07.2005 at NVS (HQrs.), New Delhi, the existing guidelines of maintenance and repairs of JNVs have been partially modified as under with the approval of General Manager (Const.) and Commissioner, NVS.

CIRCULAR

1. MAINTENANCE & REPAIR OF JNVs BY JNV PRINCIPALS

As per present guidelines for Maintenance and Repairs in JNVs at permanent site and permanent buildings Rs. 3.00 lakhs is being allocated to JNV Principals. The above Rs. 3.00 lakhs to be spent by JNV Principals is divided into two sub-heads as under: -

- a) Rs. 1.00 lakh on day-to-day maintenance like replacement of broken glasses, tubelights, repair of water pipelines, electric motors etc.
- b) Rs. 2.00 lakhs for white/colour washing, painting, water proofing paint, scrapping and repairing of plaster in patches etc.

It was reported by all Deputy Commissioners during the conference that often there is a saving in one sub-head and excess expenditure on other sub-head. But due to present guidelines, the Principals are not able to utilize saving in one sub-head against excess expenditure on other sub-head.

In order to improve the maintenance standard in the JNVs, the sub-headwise ceiling is withdrawn and Principals are authorized to utilize saving in one sub-head against the excess expenditure on the other sub-head. However, total ceiling shall remain Rs. 3.00 lakhs for CPWD pattern Vidyalayas and Rs. 4.50 lakhs for CBRI pattern Vidyalayas as approved by the Construction Coordination Committee but subject to approval of Finance Committee.

2. SPECIAL REPAIR OF JNVs BY DEPUTY COMMISSIONERS

Deputy Commissioners are being allocated Rs. 10.00 lakhs for sanction of urgent repair works in JNVs in their respective regions. Itemwise break up of Rs. 10.00 lakhs has been defined in guidelines issued by NVS vide Circular No.F.1-2/2001/NVS(GM/149 dated 02.11.2001. The Deputy Commissioners of Regional Offices have been given power to sanction the estimate of repair works. It was pointed out by all the Deputy Commissioners that financial ceiling from various items be withdrawn and Deputy Commissioners may be authorized to spend Rs. 10.00 lakhs on urgent repair works as per the requirement and need of the JNV.

In order to make maintenance system more effective, Deputy Commissioners of Regional Offices are authorized to spend Rs. 10.00 lakhs as per the need of the Vidyalayas and item wise ceiling is withdrawn.

3. SPECIAL REPAIRS OF JNVs

As per present guidelines, the special repair/maintenance works are to be carried out through CPWD/Central/State Govt. agencies. It was pointed out by Deputy Commissioners that often CPWD/State Govt./Central Govt. agencies are not interested to take up maintenance /special repair works of smaller magnitude. As a result, these works are badly delayed apart from cost overrun.

In view of this, Executive Engineer, Regional Office is authorized to take up maintenance and repair works upto Rs. 10.00 lakhs subject to sanction of estimate by NVS(HQ). The modalities and norms for estimate/tenders/payment etc. shall be governed as per the guidelines given in CPWD manual.

This issues with the approval of General Manager (Const.) and Commissioner, NVS.

(DINESHWAR GAUR) EXECUTIVE ENGINEER

Copy to:

- 1. PS to GM(Const.) for kind information
- 2. All Deputy Commissioners, Regional Office, NVS
- 3. All Executive Engineers of NVS Regional Offices.
- 4. All Executive Engineers/Asstt. Engineer of NVS(HQ)
- Asstt. Commissioner (Fin.), NVS(HQ),
- 6. Asstt. Commissioner (Audit), NVS(HQ)

EXECUTIVE ENGINEER