

GOVERNMENT OF INDIA
Ministry of Mines
Geological Survey of India

Kolkata, December, 2009

No. /HPC/Mission-V/Training and Capacity Building/IC/2009

ORDER

1.0 The **High Powered Committee (HPC)** constituted by the Government of India vide Resolution No. 11(39)/2007-M.1 dated 7th January, 2008 to review the functioning of the Geological Survey of India, submitted its Report to the Government in March,2009. Ministry of Mines while considering the HPC Report accepted 'in principle' the HPC recommendations for implementation .The HPC in its Report made a large number of recommendations including changes in Structure, Organization & Human Resources in GSI. One of the major recommendations is to re-structure the GSI in Mission-Region Hybrid Matrix mode of functioning. In the Annexure to the Resolution No.20/5/2009-M.II dated 07 July 2009, according 'Attached Office' status to GSI a list of policy executing and coordinating offices was provided which includes Five Missions ,Six Regional Offices, DG's Camp Office at Delhi etc.

1.1 The HPC has recommended that the training must be taken up in Mission mode and vide Resolution No.27/79/2009-M.II /HPC dated 17th July, 2009 the Government resolves that existing GSITI at Hyderabad shall house the training Mission.

1.2 It is intended that GSITI should have the capacity and develop into a knowledge sharing institute not only in respect of GSI's own resources, but also of other stakeholders of the geo-scientific sector including Central and State Government institutions, private sector institutions, academic and research institutions, etc.

2.0 Mission – V: Training & Capacity building

2.1 In keeping with the hybrid matrix principle, the **GSITI, Hyderabad** will house the Training Mission (**Mission-V**). Deputy Director General (till elevated to Additional Director General) will be the head of GSITI and Head of the Department (HOD) **stationed** at GSITI Headquarters at Hyderabad.

2.2 The GSITI, Hyderabad shall aspire to be a Degree awarding Institute and be responsible for

- overall Training Policy
- Coordination and
- Programme goals, and

These responsibilities shall be executed through following three divisions of GSITI:

- Training Advisory Committee
- GSI Training Institute
- Regional Training Institutes

The GSITI will conduct

- Induction Courses for GSI Geoscientists,
- International Courses,
- Training of Trainers Courses for Regional Training Institutes and State Training Institutions and specialized courses, drawing on Regional Training Institute resources to the extent of the Regional specialization within the GSI
- Capsule courses for GSI geoscientists as well as DGM/State and Central Departments falling in the Southern Region geographical area specific to regional needs and

The GSITI will formulate

- The Annual Training Calendar for the Training Mission to be finalized by **GSITI** in its Training Advisory Committee (TAC) for both its own programmes and Regional Institute programmes factoring in State DGM requirements, and placed in the CGPB for final approval

- **GSITI** will develop a policy, and the **Regional Training Institutes** will develop the corresponding capability, of providing suitable training programmes on specific issues for M.Sc. and Ph. D. students. These will be supplemented by training programmes for specific field activities such as sample collection and ground-truthing and students opting for such training could then be deployed in the groundwork for National Geochemical Mapping or Gemorpholical or Hyperspectral Mapping fieldwork along with a Geologist.

3.0 Regional Training Institutes & Field Training Centres (RTIs & FTCs):

3.1 The HPC recommended creation of Regional Training Institutes (RTI), one each at the Regional Headquarters of Geological Survey of India except at Southern Region, (the training needs of Southern Region will be looked after by GSITI, Hyderabad), under GSITI to function in a hybrid matrix system of Administration. The Regional Training Institute will be [Table-1]:

Table-1

Sl. No.	Regional Training Institute	Headquarters
1	GSI Regional Training Institute – SR*	Hyderabad
2	GSI Regional Training Institute – NR	Lucknow
3	GSI Regional Training Institute – WR	Jaipur
4	GSI Regional Training Institute – CR	Nagpur
5	GSI Regional Training Institute – ER	Kolkata
6	GSI Regional Training Institute – NER	Shillong

*Shall be part of GSITI, Headquarters

3.2 Broad Functions of Regional Training Institutes:

- The **Regional Training Institutes** will conduct short-term courses for Regional GSI geoscientists (Table-1 showing details of Regional specialization) and State Government geoscientists, and courses on the regional specialization.
- The Regional Training Institute Calendar will be prepared on the basis of SGPB inputs, considering the needs of State geoscientists, Regional training needs assessments and GSITI general directions. Each Regional Training Institute shall run at least one course a year specially catering to State Government geoscientists of the Region, and courses on its regional specialization shall be open to State Geoscientists so that they too can develop parallel capabilities to some extent, particularly on region specific issues.
- Each Regional Training Institute will develop linkages with Central and State Geoscientific Institutions and Universities located within the Region or having specialization related to the Region and offer training services tailored to their requirements. Similarly, the Regional Training Institute shall endeavour to develop resource persons in such institutions to help run their training programmes. The Institutions who are part of CGPB and its Committees will be given preference in this respect.
- Regional Training Institutes will have minimal core faculty in any case and shall use the services of Guest Faculty from Institutions from the Region and retired Geoscientists. Through a system of performance appraisal, the Regional Training Institutes shall grade local guest faculty for their resources and use them appropriately. The Institutes shall also provide training to the technicians and geoscientists handling or utilizing technical and laboratory equipments, particularly newly acquired sophisticated equipments.
- Regional Training Institutes will be headed by a Director (Training) who will conduct training courses in accordance with the Training Plan approved by the DDG, GSITI, Hyderabad.

- Regional Training Institutes will be located at the Regional office premises and work under day-to-day control of Additional Director General (ADG) & Head of Department (HOD) of the Region except in the case of the Southern Region where he will be under the direct control of DDG GSITI. Director, Regional Training Institute shall be Head of Office for running Regional Training Institute and Field Training Centres attached to it.

3.3 The specialized courses at each Region for GSI scientists will be as follows [Table-2]:

Table-2

Sl. No .	Regional Training Institute	Specialization
I	SR-Hyderabad	Induction Level Courses, International courses and ToT courses for Regional Training Institutes and State Training Institutes Petrology - Petrology, Ore Microscopy Remote sensing - Remote sensing application Geoinformatics - GIS, Digitization technologies Geostatistics - Numerical simulation modeling and prognostics modeling for geospatial data, Mobile mapping Geophysics and Geophysical Data Processing Geochemistry, Geochemical Data processing Analytical Chemistry for ultra low precision Geotechnical Studies Rock Mechanics Deep Geology
II	NR-Lucknow	Glaciology

Sl. No .	Regional Training Institute	Specialization
		<p>Engineering Geology Himalayan Geology/ Himalayan Tectonics /Siwalik Mapping Seismotectonics and Earthquake Engineering Advance Geotechnical studies Quaternary Geology Landslide and Landslide Hazard studies Active Fault Mapping Desert Geology Geomorphology of Glaciated Terrains Advance Petrology Limnology Speilotherms EPMA,ICP-MS,ICP-AES,AAS, XRD Mineral Exploration: Base Metal, Strategic Minerals, Placer Gold Climatology Igneous, Mafic & Ultramafic rocks.</p>
III	WR-Jaipur	<p>Desert Geology, Geochemical studies Archaean / Proterozoic Terrain Mapping Exploration Techniques for precious and industrial minerals Exploration of Ferrous/PGE group minerals Ore Deposit modeling & evaluation Geophysical & Geochemical exploration field studies</p>
IV	ER-Kolkata	<p>Sedimentary basin analysis Coal petrography</p>

Sl. No.	Regional Training Institute	Specialization
		Geochronology & Isotope Geology Coastal & near shore processes Gondwana Geology Mapping techniques in Coal field areas Coal exploration Borehole logging
V	CR-Nagpur	Geomorphology and land-use Photogeology & Remote sensing studies Geo-archaeological studies Medical Geology Quaternary Geology Deccan Traps Purana Basin studies Drilling techniques
VI	NER-Shillong	Geo-environmental & Fragile ecological studies Terrain evaluation Neotectonics Landslide & Landslide Hazard studies Mapping techniques for Tertiary rocks

4.0 Field Training Centres:

4.1 Regional Training Institutes forming part of the Regions will have Field Training Centres (FTCs) specializing in a particular geologic domain [Table-3]. The following eight FTC's with specialization shown against each RTI will be functional w. e. f F.S. 2009-10.

Table-3

Sr.No	Regional Training Institute	Field Training Centre	Field Training Centre HQ	Specialization
1	GSI Regional Training Institute - SR, - Hyderabad	1) Chitradurga, 2) Kothagudem*	Bangalore Hyderabad	Mapping in Igneous and Metamorphic terrain
2	GSI Regional Training Institute - NR, Lucknow	1) Bhimtal, 2) Saketi*	Lucknow Chandigarh	Himalayan Geology/Bio-stratigraphy/ Paleontology
3	GSI Regional Training Institute - WR, Jaipur	Zawar	Jaipur	Mineral Exploration
4	GSI Regional Training Institute - CR, Nagpur	Raipur	Raipur	Administration /PGRS
5	GSI Regional Training Institute - ER, Kolkata	Kuju	Ranchi	Mapping in Sedimentary terrain /Coal Geology
6	GSI Regional Training Institute - NER, Shillong	Aizwal*	Aizwal.	Landslide

*** New FTC**

4.2 Broad Functions of Field Training Centre:

The FTC will be conducting Orientation courses for new inductees in the department under GSITI in respect of specialization of that Centre and short term courses for geoscientists of DGM, central organizations and other

stake holders in the sector. FTCs will be strengthened in order to provide suitable stay and working facilities including field labs and field mapping equipment and LAN based computer facilities.

4.3 Administrative and Technical Control:

The Field Training Centres will function under the Regional Institutes rather than GSITI in order to have better management control. The FTC will be headed by Director (Training) working under day-to-day control of ADG/HOD of the Region and reporting to Deputy Director General, GSITI, Hyderabad for programme planning.

4.4 Opening of Additional Field Training Centres:

GSITI with the approval of Training Advisory Committee (TAC) will establish more FTCs towards capacity building in a phased manner to accommodate new incumbents in GSI and participants from other sister organizations in its Orientation Course for Geoscientists. Some of the new FTCs which will be established shall be parallel in activity with the existing ones specializing in similar subjects facilitating rotation of batches between the existing and the new FTCs. The free time with the FTCs will be utilized for running other conventional or new courses as the situation demands.

4.5 Coordination in Training:

The National Training Policy envisages that there must be an institutionalized arrangement within each organisation for overseeing the training function as an integral part of the Personnel Management System. The concept of a 'Training Manager', whose job will be to ensure an integrated approach to Training, has been suggested. The training Manager will be actively involved in the series of activities culminating in organisation of training programmes, such as analysis of training requirements, designing of the training programmes, selection of appropriate training institutions and evaluation of training. Most significantly, he will advise the top management on the kind of interventions, both training and non-training, required for overcoming specific problems of performance. The Training

Manager will act as an interface between the Department and Training Institution on one hand and between Department and DOP&T on the other.

4.6 The **Addl. DG (Support System-III (Science Policy))** shall be the **Training Manager** in case of GSITI.

4.7 Overall strategy and training policy will be discussed, guided and approved by Training Policy Coordination Committee [TPCC]. TPCC is an inter-ministerial committee and will be headed by the Secretary, Mines.

5.0 Faculty:

5.1 GSI on the whole is facing a huge human resource crunch in undertaking geological investigations for fulfilling the country's requirements. This shortage of personal has its impact on the Training Institute as well, resulting in the institute to curtail its training programmes. GSITI has a minimal core faculty at present which needs to be augmented soon to meet the growing demand of field training of new incumbents to GSI as well as the growing demand from State Geology Departments. Further GSITI aspire to become a diploma/ degree-awarding Institute apart from providing in-service refresher or capsule courses to the geoscientists of GSI, State DGMs, and other Central government Institutions. The Training Institute is also gearing to function as an internationally reputed training facility for geoscientists of private sector as well as of other countries.

5.2 The faculty in GSITI is primarily required for the orientation, short term courses and for other courses that are proposed to be conducted at the Geological Survey of India Training Institute and Regional Training Institutes/FTC. The core faculty will also be required once it gets accreditation from AICTE for conducting the professional courses. This requirement, at present, is being met with from the geoscientific human resource available in the different regions of GSI and to some extent from retired GSI scientists.

5.3 The faculty demand henceforth will be met with by inducting:

- i) **Full time faculty** posted at GSITI, RTI and FTC

ii) **On Deputation** basis from Central/State/University as per the existing Govt. Rules.

iii) **By Reemployment of retired personnel** after approval of competent authority.

iv) **By deploying eminent geoscientists** for fulfilling Short term requirements for the purpose of class room teaching and field work

a) From GSI,

b) Universities, and

c) Other State and Central Government Departments as Guest Faculty.

6.0 Budget:

The GSITI Mission Headquarters shall submit a consolidated budget after collating the budget demands of Regional Trainings Institutes and FTCs. Each Regional Training Institute will have its own budget duly approved by GSITI for training activities and for FTC under its control. Budget on allocation shall be distributed to Regional Training Institutes to be operated by Additional Director General/ Deputy. Director General & Head of Department of the Region.

7.0 Staff:

As per Ministry of Mines Resolution dated the 17th July, 2009 the present Group C&D incumbents in the FTCs and the GSITI shall continue to be part of the existing centralized cadre for purposes of seniority and promotion for such period as may be necessary and GSITI shall be the cadre controlling authority for the purpose. All posts for the FTCs will be budgeted with the Regional office to which they are attached and the Regional Office shall be responsible for all operational and administrative matters relating to the FTCs.

8.0 Annual Confidential Report:

- Annual Confidential Report of all the Officers and Staff of Geological Survey of India Training Institute will continue to be initiated, reported, reviewed and accepted as per the guidelines on the subject.

- Annual Confidential Report of all the STA, JTS/STS Officers of Geological Survey of India Regional Training Institute will be reported by Director Regional Training Institute, reviewed by Deputy Director General, Region and accepted by Director General as per the existing guidelines on the subject.
- Annual Confidential Report of all the Officers of Geological Survey of India Field Training Centre will be reported by Director, Field Training Centre; reviewed by Deputy Director General, Region and accepted by Director General as per the existing guidelines on the subject.
- Annual Confidential Report of the JAG level officers in RTIs and FTCs will be reported upon by the DDG, Region [as well as by DDG (GSITI) in respect of planning attributes] and reviewed & accepted by the Director General.
- Annual Confidential Report of the JAG level officers in GSITI, Hyderabad will be reported and reviewed as per existing practice.
- Annual Confidential Report of all the C&D Staff of Geological Survey of India Regional Training Institute will be reported by JTS/STS level officer of Regional Training Institute, accepted by Deputy Director General, GSITI, Hyderabad for existing incumbents of GSITI and DDG(Region) for new recruits.
- Annual Confidential Report of all the C&D Staff of Geological Survey of India Field Training Centre will be reported by JTS/STS level officer, Field Training Centre; reviewed by Director, GSI FTC, and accepted by Deputy Director General, GSI TI, Hyderabad for existing incumbents of GSITI and DDG(Region) for new recruits.

9.0 Miscellaneous:

In order to efficiently run and maintain the Institute, it will have the following essential services:

10.0 Asset Procurement & Management:

GSITI, Hyderabad shall manage its assets through its own Asset Procurement & Management Division where as the assets of Regional

institutes and the FTCs will be managed through their respective Regional Asset Procurement & Management Divisions.

11.0 Security:

Security requirement of GSITI, Hyderabad, Regional Institutes and FTCs shall be assessed as per location, total area, risk assessment and accordingly be managed by deploying available manpower, in the absence of which it will be outsourced.

12.0 House keeping:

12.1 House keeping is one of most important elements in running of an institute and comprises

- 1) General maintenance of GSITI offices at Hyderabad, Regional Training Institutes and FTCs
- 2) Maintenance of Faculty and Trainee hostels
- 3) Maintenance of appurtenant structures and surroundings

12.2 General Maintenance of its civil structures and electrical supply at GSITI, Hyderabad and Regional Institutes will be carried out through CPWD, and the maintenance of civil work and electrical component of semi permanent structures of FTCs where CPWD facilities are not available will be carried out by outsourcing.

12.3 For general day to day maintenance of office, Faculty and Trainee hostels, the house keeping services will be outsourced. The furnishing material, detergents, pesticides and other items required will be provided by the Institute.

12.4 The maintenance of Lawns and its appurtenant structures at GSITI headquarters and at FTCs will be done through outsourcing.

13.0 Catering:

The infrastructure facilities such as kitchen space, electricity, utensils, furniture, crockery, gas connections etc for running of mess for faculty and trainees at GSITI, Hyderabad and at the FTC's shall be provided by the Institute. However, the catering services shall be outsourced by the Institute on contract basis for supply of food at nominal rates.

14.0 Transport:

14.1 The transport is primarily required for four main reasons

- i) General administration of Institute, RTI, FTC including visit to local market for assets procurement/bank etc.
- ii) Interaction regarding training programmes with other Institutes /Organizations/ Universities etc
- iii) To pick and drop facility for faculty/trainees at railway station/bus stand/airport/hotel etc.
- iv) To transport trainees to place of work, in the field, visit to a place of geological interest, local market, hospital etc.
- v) To transport the faculty to place of work, in the field etc.

14.2 The transport requirement shall be met by deploying field vehicles and in case of its non availability, it will be outsourced.

15.0 Medical Facilities:

First aid arrangements and medical assistance at GSITI Headquarters, Regional Institutes and at FTCs have to be arranged in consultation with the nearby CGHS dispensary/hospital. Arrangements are also needed to be in place to meet any medical urgency at the GSITI, RTIs and FTCs.

(N.K.Dutta)
Director General, GSI