

## 15 GEM ORGANIZATION PLAN

The GEM Collaboration is made up of individual members and collaborating institutions. The Organization includes a Collaboration Council, a spokesman or Spokesmen, an Executive Committee, an International Committee, a Project Manager with a management office (chief engineer, budget officers, etc., etc.) and Subsystem Organizations. The interrelationship of these components are indicated in the GEM Organization Chart.

This Organization Plan is expected to go into effect at the time of the approval of the GEM Technical Design Report. Previous to that time there has been an evolution of several interim organizations. The first one, with two cospokesmen and a steering committee, prepared the GEM EOI (Expression of Interest). The second, adding the Collaboration Council, prepared the GEM LOI (Letter of Intent). The third interim organization, which is in effect at this time, is preparing the GEM Technical Design Report. It consists of two spokesmen, the Collaboration Council, the Executive Committee, an Acting Project Manager, and an initial set of Subsystem Groups. The intention is that the present interim organization will evolve smoothly into the final GEM Organization described in this Plan.

### 15.1 MEMBERSHIP

Scientists with an interest in the research program of the SSC (Ph.D. physicists, graduate students, and engineers) of any nationality are eligible to be members of the GEM Collaboration provided that they are contributing a significant fraction of their research effort (averaged over a period of several years) to the SSC program.

Collaborating Institutions can be Universities, National Laboratories or other Institutions that have several members, at least one of whom is a Ph.D. Physicist. GEM Collaborators may be involved in other experiments or activities, but are expected not to be members of competing SSC or LHC Experiments.

### 15.2 THE COLLABORATION COUNCIL

The GEM Collaboration Council will consist of one representative from each collaborating institution. The Collaboration Council will deal with general issues that concern the collaboration. It will serve as a forum for informing the collaboration and will provide input and guidance for all major scientific, technical and fiscal matters. In particular the collaboration, through the Collaboration Council, will legitimize and approve the GEM Organization Plan, the Publication Policy, Management Plan, and other major concerns of the collaboration. It will also legitimize and approve the selection of the Spokesmen, the Project Manager, the Executive and International Committees, and the Subsystem leadership. The Collaboration Council will have open meetings typically once every one or two months. The Collaboration Council, through its

chairman, with consultation with the Spokesmen, will organize Collaboration Meetings typically once or twice a year.

- a) The Collaboration Council Representatives will be chosen by each institution. The term of office of the Representatives will be at the pleasure of each institution.
- b) The Collaboration Council will elect its own chairman. The chairman will guide the affairs of the Collaboration Council. In particular, he or she will organize and run the meetings of the Collaboration Council and the general Collaboration meetings; will be responsible for keeping an up to date list of the membership of the Collaboration and the Collaboration Council Representatives; and will administrate the voting of the Collaboration Council on relevant issues.
  - i) The term of office of the Collaboration Council chairman will be two years, not renewable.
  - ii) Nominations for the chairman will be from the floor at a Collaboration Council Meeting or by letter to the outgoing chairman.
  - iii) The outgoing chairman will check that the nominees are willing to run, and distribute the ballot for vote by the Collaboration Council Representatives by mail or E-mail with at least two weeks notice.
  - iv) If no candidate gets a majority, the top two candidates will stand for a run-off election.

### **15.3 THE GEM SPOKESMEN**

The Spokesmen will be responsible for the scientific, technical, fiscal, and managerial concerns of the Collaboration. It is mainly their responsibility to have a well designed and functioning detector ready at the turn-on of the SSC.

The Spokesmen, in consultation with the Executive Committee, will approve budget levels and yearly budget allocations to the subsystems, have control of changes in the configuration of the detector and approve overall schedules and approve major schedule changes. The Spokesmen will have final signature authority for GEM for major items that have to be countersigned by the SSC Laboratory Management. The Spokesmen, in consultation with the Executive Committee, will direct the technical and engineering design, physics integration and technical implementation of the detector.

- a) There will be one spokesman or two Co-Spokesmen as maybe deemed appropriate.

- b) The Spokesmen have a fixed 3-year term of office, with no prejudice or limit on the number of terms served.
- c) The Spokesmen will be selected, soon after the GEM Technical Design Report is approved, by the following process:
  - i) There will be a Nominating Committee consisting of 9 members of the GEM Collaboration. Of the 9 members, 4 will be chosen by the Collaboration Council, 2 by the SSC Laboratory, and 3 will be selected by the present Organization Committee to provide balance. For subsequent Nominating Committees the last 3 members will be chosen by the Executive Committee since by that time the present Organization Committee will have dispersed. The Nominating Committee will select its own chairman.
  - ii) The Nominating Committee will consult extensively with members of the Collaboration, the present interim spokesmen, the SSC Laboratory, the subsystem leaders, etc., etc. and will nominate a single slate.
  - iii) The slate thus nominated will be put up for approval or rejection by the Collaboration Council. The chairman of the Collaboration Council will solicit one vote from each Collaboration Council Representative by mail or E-mail, allowing at least two weeks between the presentation of the slate and the balloting. A majority vote will be required for approval.
- d) This selection process will be repeated every three years. A new Nominating Committee will be constituted each time as specified in Section 3-c-i above.
- e) A petition signed by 2/3 of the Executive Committee followed by a majority vote of the Collaboration Council can trigger this selection process at any time under unusual circumstances.

#### **15.4 THE EXECUTIVE COMMITTEE**

The Executive Committee, in concert with the Spokesmen, is responsible for the scientific, technical, fiscal and managerial decisions relevant to the design, construction and operation of the GEM Detector. The Executive Committee will serve as the final Configuration Change Control Board.

- a) The Executive Committee will consist of between one and two dozen members of the GEM Collaboration. The members of the Executive Committee will be nominated by the Spokesmen after wide consultation with the Collaboration. The

nominated slate will be approved or rejected by the Collaboration Council (using the procedure of Section 3-c-iii above).

- b) The terms of office of the Executive Committee will be the same as that of the Spokesmen.
- c) The Project Manager, the GEM Chief Engineer, and the leaders of the various GEM Subsystems will be members of the Executive Committee.
- d) The Spokesmen will serve as chairmen of the Executive Committee.
- e) The Executive Committee will meet at least once every one or two months.
- f) The membership of the Executive Committee can be re-evaluated by the Spokesmen as appropriate, with the approval of the Collaboration Council.

## **15.5 THE GEM PROJECT MANAGER**

The responsibility of the Project Manager is to provide technical, administrative, management, and budget coordination to insure the efficient and timely construction of the GEM detector, and is responsible to both the GEM Spokesmen and Executive Committee and the SSC Laboratory Management. The Project Manager is also the head of the SSC GEM Project Office. He serves as the liaison with the SSC Management and the DOE.

- a) The Search Committee for the Project Manager consists of
  - i) The Chairman of the Collaboration Council
  - ii) Two SSC Lab representatives chosen by the SSC Lab management
  - iii) Four or five other members, including the chairman of the search committee, selected by the GEM Spokesmen.
- b) The search committee will conduct a search, with extensive consultation with members of the Collaboration, the SSC Lab, the DOE, the GEM Subsystem leaders, etc., etc. and will select a single candidate to be approved or rejected by the Collaboration Council (same procedure as defined in Section 3-c-iii above).
- c) It is anticipated that the Project Manager will serve with indefinite term to the completion of the construction of the GEM detector. However, the Spokesmen can initiate the formation of a new Search Committee at any time in case of a problem.

## **15.6 THE GEM CHIEF ENGINEER**

The GEM Chief Engineer is responsible to work with the GEM Spokesmen and the Executive Committee to develop the engineering design for the detector, the detector experimental hall and the detector support infrastructure, and to carry out that design in an efficient and timely fashion. The chief engineer is primarily responsible to the GEM Spokesmen.

- a) The Chief Engineer will be nominated by the Spokesmen after extensive consultation with the Project Manager, the Gem Subsystem leadership, and the SSC Laboratory Management. The nominee will be approved or rejected by the Collaboration Council ( using the procedure of Section 3-c-iii ).
- b) It is anticipated that the Chief Engineer will serve with indefinite term to the completion of the GEM detector. However the Spokesmen can initiate a new nomination process at anytime in case of a serious problem.

## **15.7 THE INTERNATIONAL COMMITTEE**

The International Committee will be responsible for fiscal policy, especially in the area of international contributions, coordination of work responsibilities between various countries, and other international issues and agreements.

- a) The International Committee will consist of one or two members from each collaborating country.
- b) The members of this committee will be selected by the Collaboration Council Representatives from each individual country after consultation with the GEM Spokesmen.
- c) The terms of office of the International Committee is up to each individual country. The spokesmen can suggest changes or additions as appropriate, with the approval of the Collaboration Council Representatives of the relevant Country.
- d) Initially the International Committee will be chaired by one of the GEM spokesmen. Later the Committee may wish to have a rotating chairman to be elected by the Committee.

## **15.8 THE GEM SUBSYSTEMS**

The GEM Detector, as far as design and construction is concerned, can be divided into a number of subsystems such as the Magnet, Calorimeter, Muon Detector, Central Tracker, Electronics, Computing and Physics Simulations. Each subsystem organization will be

coordinated by a Subsystem Leader, and have a Steering Committee, a subsystem Project Manager and a Chief Engineer. The Subsystem Leader will serve as the chairman of the Steering Committee.

- a) The Subsystem Leaders will be nominated by the GEM Spokesmen, in consultation with the Collaboration and the key members of each subsystem. The nominated slate will be approved or rejected by the Collaboration Council (same procedure as in Section 3-c-iii above).
- b) The terms of office of the Subsystem Leaders is the same as that of the Spokesmen. The Spokesmen can recommend changes in Subsystem leadership under unusual circumstances, with the approval of the Collaboration Council.
- c) The Subsystem Steering Committee, Project Manager, and Chief Engineer will be selected by the Subsystem Leader in consultation with the GEM Spokesmen, Project Manager, and Chief Engineer.
- d) The Subsystem Leaders are primarily responsible to the GEM Spokesmen. The Subsystem Project Manager and Chief Engineer are responsible to their Subsystem Leader and to the GEM Project Manager and GEM Chief Engineer.

## **15.9 ADMISSION OF NEW COLLABORATORS INTO GEM**

- a) Up to the time of the approval of the GEM Technical Design Report by the SSC Laboratory GEM will have an open membership policy.
  - i) Any institution can join the Collaboration by notifying the Chairman of the Collaboration council or one of the Spokesmen of their intention in writing.
  - ii) New members can join an institution that is already a GEM Collaborator at the discretion of that institution. It is the responsibility of the Collaboration Council Representative from each institution to notify the chairman of the Collaboration Council of any changes in membership.
- b) After the GEM Technical Design Report is approved the following procedures should be used for the admission of new collaborators to GEM:
  - i) A new institution that desires to join the collaboration should enter into negotiations with the GEM Spokesmen and possibly one of the Subsystem Leaders if appropriate to discuss the contributions and role of the new institution. If these negotiations reach a satisfactory conclusion the new institution should write a letter to the chairman of the Collaboration Council or

to one of the Spokesmen stating their desire to join GEM, list the individual members of their group, and their anticipated role in GEM. The chairman of the Collaboration Council will present their case at the next Collaboration Council Meeting. A favorable vote from a majority of the Collaboration Council Representatives will be required for admission.

- ii) Individuals who wish to join GEM at an institution that is already a GEM Collaborator can do so at the discretion of that institution. It is the responsibility of the Collaboration Council Representatives to keep the chairman of the Collaboration Council aware of changes in membership at their Institution.
- c) Withdrawal from the Collaboration. The membership of an individual collaborator will terminate when the Collaboration Council Representative from his or her institution informs the chairman of the Collaboration Council that individual is no longer associated with GEM. An institution can withdraw from the collaboration (provided they have satisfied whatever construction responsibilities that they have agreed to) by informing the chairman of the Collaboration Council of their intention in writing. Collaborators who are no longer members of GEM may still be listed as authors on GEM papers if appropriate. This issue will be dealt with in the GEM Publication Policy which is beyond the scope of this Organization Plan.

#### **15.10. ADOPTION OF THIS ORGANIZATION PLAN.**

This Organization Plan will go into effect when approved by a majority vote of the Collaboration Council (using the procedure of Section 3-c-iii).

#### **15.11 AMENDMENTS TO THIS ORGANIZATION PLAN**

A petition for a change or amendment to this organization plan after it has been adopted can be initiated either by the Spokesmen or by a letter to the chairman of the Collaboration Council signed by at least 50 members of the collaboration. Following such a petition the Spokesmen will set up a committee to study the desirability of such a change and to draft a specific proposal. The change or amendment will go into effect when approved by a majority vote of the Collaboration Council ( using the procedure of Section 3-c-iii ).