

## **ENVIRONMENTAL CODES OF PRACTICE (ECOP) SOLAR (PHOTOVOLTAIC) ENERGY DEVELOPMENT**

### **Occupational Health and Safety**

#### **A. During Manufacturing of PV Cells**

- Consider site of production facilities: proximity to populated areas, upwind or downwind location from populated centers
- Regarding the use of toxic and hazardous materials for production of photovoltaic (PV) cells:
  - Consider type(s) of PV cells manufactured: type and quantity of chemicals used as feedstocks, doping agents, solvents and transport agents, technology involved in their production, steps in the production process, etc.
  - Take note of toxicity and health hazards posed by chemical substances used in PV manufacturing process (e.g. phosphine used in amorphous silicon cells is very toxic and poses a severe fire hazard through spontaneous chemical reaction).
  - In sourcing out the PV cells, consider the manufacturer experience and its compliance with local, national and/or international laws and regulations concerning toxic and hazardous materials
  - Compliance with internationally accepted hazmats management guidelines (e.g. IFC's Hazardous Material Management guidelines) particularly regarding worker health and safety, personnel training, and preventive measures regarding life and fire safety, including but not limited to compliance with insurance requirements, emergency procedures in place, compliance with local building and fire codes, provision of protective clothing, goggles and footwear, and periodic medical examinations.

#### **B. Construction/Installation of Facilities**

- Compliance with general international and national health and safety regulations
- Compliance with building code and fire code

#### **C. During Operation of PV System**

- Compliance with international and national health and safety regulations, e.g., personnel trainings, preventive measures on life and fire safety
- Proper operation and maintenance SOPs

- Compliance with national fire code
- Provision of protective clothing, goggles and footwear to workers
- Preparation of emergency preparedness and response plans in case of accidents,
- Prepare worker compensation schemes for health hazards and accidents