

## Construction and Extraction

### Painters, Construction and Maintenance

**Construction and Maintenance Painters** apply paint, stain, varnish, and other finishes to buildings and other structures. They select the right paint or finish for the surface to be covered, taking into account durability, ease of handling, method of application, and customers' wishes. Painters first prepare the surfaces to be coated, so that the paint will adhere properly. This may require removing the old coat of paint by sanding, wire brushing, burning, or water and abrasive blasting. Painters also fill nail holes and cracks, sandpaper rough spots, and wash walls and trim to remove dirt, grease, and dust. On new surfaces, they apply a primer or sealer to prepare the surface for the top coat. Painters mix paints and match colors, relying on knowledge of paint composition and color harmony. In most paint shops or hardware stores, mixing and matching are automated.

There are several ways to apply paint and similar coverings. Therefore, painters must be able to choose the appropriate paint applicator for each job, depending on the surface to be covered, the characteristics of the finish, and other factors.

Some painting artisans specialize in creating distinctive finishes by using one of many decorative techniques. These techniques frequently involve "broken color," a process created by applying one or more colors in broken layers over a different base coat to produce a speckled or textured effect.

Some painters specialize in painting industrial structures to prevent deterioration. One example is applying a protective coating to oil rigs or steel bridges to fight corrosion. Painters may coat interior and exterior manufacturing facilities and equipment such as storage tanks, plant buildings, lockers, piping, structural steel, and ships.

When painting any industrial structure, workers must take necessary safety precautions depending on their project. Those who specialize in interior applications such as painting the inside of storage tanks, for example, must wear a full-body protective suit. When working on bridges, painters are often suspended by cables and may work at extreme heights. In order to work on tall buildings, painters erect scaffolding. These include "swing stages," which are scaffolds suspended by ropes, or cables attached to roof hooks. When painting steeples and other pointed structures, they use a bosun's chair, a swing-like device.

*Paperhangers* cover walls with decorative coverings made of paper, vinyl, or fabric. They first prepare the surface to be covered by applying a compound, which seals the surface and makes the covering adhere better. When redecorating, they may first remove the old covering by soaking, steaming, or applying solvents. When necessary,

they patch holes and take care of other imperfections before hanging the new wall covering.

Painting is a physically demanding job requiring painters to stand, climb ladders and scaffolding, bend, kneel, stretch, and work with their arms raised overhead for long periods of time. Industrial painters typically work outdoors in dry, warm weather, and those who paint bridges or building infrastructure may have to work at extreme heights, in uncomfortable positions, and suspended from ropes or cables. Some painters may be exposed to drywall dust or materials that are hazardous or toxic, such as during the removal of lead-based paint. In these circumstances, painters wear protective equipment.

## **Education/Training:**

### *How to Obtain:*

Painting and paperhanging is typically learned through on-the-job training as a helper or laborer, but there are a number of formal and informal training programs. The more formal a training program is the more likely it is that the individual will enter into the profession at a higher level earning a higher salary.

A high school diploma or its equivalent and being 18 years of age are typically required for entry into an apprenticeship program. Apprenticeship programs for painters and paperhangers consist of 2 - 4 years of on-the-job training and a minimum of 144 hours of classroom instruction each year they are in the program. Skills and experience also can be gained by attending technical or vocational training that usually takes about a year to complete.

Some organizations offer training and certifications in order to enhance the skills of their members. For example, those who are interested in industrial painting can obtain certification in protective coating through the National Association of Corrosion Engineers (NACE) Coating Inspector Program. Students successfully completing either the 6-day Classroom Course or CIP Exam Course 1 are recognized as NACE Coating Inspector Level 1-Certified. The course covers topics which include: Dehumidification, Coating Types and Inspection Criteria, Concrete and Cementitious Surfaces and Pipeline Coatings.

Requirements for certification include:

- Completed Application
- Specified years of experience (lowest is 2)
- Selected courses completed

### *More Information on Certification:*

National Association of Corrosion Engineers: <http://www.nace.org>

*Average Costs:*

Apprenticeship programs generally do not charge the apprentice for classroom instruction, provided the apprentice maintains employment with a contractor affiliated with the apprenticeship program, throughout the apprenticeship period of 3 to 4 years. Specialty certification costs are between \$140 and \$350\*.

\*Note: Costs of recertification vary.