**PROJECT MANAGEMENT**

**Element 4**

**Solutions to activities**

**Activity 1 solution**

Planned progress at this point for each phase:

* Design work – planned over a 3 month period – should have been completed by 30 June – planned progress = 100%
* NGL Plant – planned over a 6 month period – should have completed 3 months by 30 June – planned progress = 3 divided by 6 = 50%
* Ethylene Cracker – planned over a 7 month period – should have completed 3 months by 30 June – planned progress = 3 divided by 7 = 42.8%
* Port Development – planned over a 7 month period – should have completed 5 months by 30 June – planned progress = 5 divided by 7 = 71.4%
* Social Infrastructure – planned over a 6 month period – should have completed 2 months by 30 June – planned progress = 2 divided by 6 = 33.3%
* Road Network – planned over a 9 month period – should have completed 6 months by 30 June – planned progress = 6 divided by 9 = 66.7%
* Commissioning – planned over a 3 month period – was not planned to have started on 30 June – planned progress = 0%.

**Activity 2 solution**

Planned completion information was produced for Activity 1. Comparisons can be made with the ACTUAL progress achieved so far:

|  |  |  |
| --- | --- | --- |
| **Project phase** | **Planned progress (%)** | **Actual progress (%)** |
|  |
| Design work | 100 | 100 |
| NGL plant | 50 | 65 |
| Ethylene cracker | 42.8 | 20 |
| Port development | 71.4 | 60 |
| Social infrastructure | 33.3 | 40 |
| Road network | 66.7 | 50 |
| Commissioning | 0 | 0 |

**Management summary**

* Design work has been completed successfully on schedule.
* NGL plant is ahead of schedule by 15% (planned 50% - actual 65%).
* There are serious problems with the Ethylene cracker which has only achieved 20% (22.8% behind schedule).
* The Port development is also behind schedule (11.4%).
* Social infrastructure work seems to be going fairly well (6.7% ahead of schedule).
* There are some difficulties with the Road network (16.7% behind schedule).
* Commissioning is not planned to start yet – so no progress was expected or recorded.
* Overall: this project has several key problem areas which must be addressed if there is to be any chance of finishing on schedule, as shown on the Gantt chart at the end of December.