Petroleum Division

PGR ONLINE SPATIAL LODGEMENT SHAPEFILE DEFINITIONS

The Petroleum & Geothermal Register (PGR) is the system used by the Department of Mines and Petroleum (DMP) to enable industry and the public to view information regarding petroleum and geothermal titles. Registered company users can also lodge various applications online.

DMP is enhancing the online lodgement of pipeline applications to introduce new spatial features. Proponents will be required to upload Shapefiles that adhere to predetermined formats as outlined in this document.

SHAPE FILE RULES

The following validation rules will apply to shape files uploaded:

- The following three (3) Esri ArcGIS files must be uploaded for each area:
  - **.dbf** - attribute format; columnar attributes for each shape
  - **.prj** - projection format; the coordinate system and projection information
  - **.shp** - shape format; the feature geometry itself
- The projection of the digital files must be spatially geo-referenced to GDA_1994_MGA_Coordinates with the relevant MGA_Zone_(49-52) specified. For example GDA_94_MGA_Zone_50

Proponents will be required to provide shape files that contain the following information:

PROPOSED LICENCE AREA

The proposed licence area for the construction phase of the proposed pipeline:

Data Source Properties:

PROPERTY	VALUE	COMMENTS
Data Type	Shapefile Feature Class	
Geometry Type	Polygon	
Projected Coordinate System	GDA_1994_MGA_Zone	
Geographic Coordinate System	GCS_GDA_1994	
Datum	D_GDA_1994	
Prime Meridian	Greenwich	
Angular Unit	Degree	

Fields/Attributes:

ATTRIBUTE NAME	DATA TYPE	SIZE/LENGTH	COMMENTS
FID	Object ID		This is generated by ArcMap and allows you to identify how many objects there are in the layer. The first object has FID = 0
Shape	Geometry		This should be “Polygon”
ID	double		A unique identifier
NAME	Text (string)	300	This is Name of the entire Pipeline

PROPOSED ROUTE

The proposed route of the entire length of the proposed pipeline:

Data Source Properties:

PROPERTY	VALUE	COMMENTS
Data Type	Shapefile Feature Class	
Geometry Type	Line	
Geographic Coordinate System	GCS_GDA_1994	
Datum	D_GDA_1994	
Prime Meridian	Greenwich	
Angular Unit	Degree	

Fields/Attributes:

ATTRIBUTE NAME	DATA TYPE	SIZE/LENGTH	COMMENTS
FID	Object ID		This is generated by ArcMap and allows you to identify how many objects there are in the layer. The first object has FID = 0
Shape	Geometry		This should be “Polyline”
ID	double		A unique identifier
NAME	string	300	This is Name of the entire Pipeline
START_PT	string	500	This is the Start Point Description of the entire Pipeline
END_PT	string	500	This is the End Point Description of the entire Pipeline

PROPOSED PIPELINE PARTS

The proposed pipeline can be made up of one or more parts. This is relevant where the applicant wishes to specify different particulars for different parts of the proposed pipeline. For example, the particulars of the proposed pipeline design may not be consistent for the entire pipeline or it may be useful to identify different parts of the pipeline with unique names. If the details for the proposed pipeline are the same for the entire length of the pipeline, then only one (1) part should be drawn and attributed. Otherwise, there should be separate lines and attributes for each part:

Data Source Properties:

PROPERTY	VALUE	COMMENTS
Data Type	Shapefile Feature Class	
Geometry Type	Line	
Geographic Coordinate System	GCS_GDA_1994	
Datum	D_GDA_1994	
Prime Meridian	Greenwich	
Angular Unit	Degree	

Fields/Attributes:

ATTRIBUTE NAME	DATA TYPE	SIZE/LENGTH	COMMENTS
FID	Object ID		This is generated by ArcMap and allows you to identify how many objects there are in the layer. The first object has FID = 0
Shape	Geometry		This should be “Polyline”
ID	double		A unique identifier
NAME	string	300	This is Name of the Pipeline Part
START_PT	string	500	This is the Start Point Description of the Pipeline Part
END_PT	string	500	This is the End Point Description of the Pipeline Part

PROPOSED FACILITIES

The situation of any proposed facilities including pumping and compression stations, terminal facilities and other permanent appurtenances of a substantial nature intended to be used in connection with the operation of the proposed pipeline. Proponents will have the ability to upload facilities that are a point, line or polygon (separate files are required for each geometry type):

Data Source Properties:

PROPERTY	VALUE	COMMENTS
Data Type	Shapefile Feature Class	
Geometry Type	Point, Line or Polyon	Facilities can be either a Point, Line or Polyon
Geographic Coordinate System	GCS_GDA_1994	
Datum	D_GDA_1994	
Prime Meridian	Greenwich	
Angular Unit	Degree	

Fields/Attributes:

ATTRIBUTE NAME	DATA TYPE	SIZE/LENGTH	COMMENTS
FID	Object ID		This is generated by ArcMap and allows you to identify how many objects there are in the layer. The first object has FID = 0
Shape	Geometry		Point, Line or Polyon
ID	double		A unique identifier
NAME	string	300	This is the Name/Identifier of the Facility
TYPE	string	100	This is the Type of Facility. Valid entries are “Pumping Station”, “Compression Station”, “Metering Station”, “Terminal Facility”, “Other”

PROPOSED MAINLINE VALVES

All mainline valves for the proposed pipeline:

Data Source Properties:

PROPERTY	VALUE	COMMENTS
Data Type	Shapefile Feature Class	
Geometry Type	Point, Line or Polyon	
Geographic Coordinate System	GCS_GDA_1994	
Datum	D_GDA_1994	
Prime Meridian	Greenwich	
Angular Unit	Degree	

Fields/Attributes:

ATTRIBUTE NAME	DATA TYPE	SIZE/LENGTH	COMMENTS
FID	Object ID		This is generated by ArcMap and allows you to identify how many objects there are in the layer. The first object has FID = 0
Shape	Geometry		Point, Line or Polyon
ID	double		A unique identifier
NAME	string	300	This is the Name/Identifier of the Valve
TYPE	string	100	This is the Type of Valve
VALVE_SIZE	Float		This is the size of the Valve (in mm)

CROSSINGS

All major crossings (including existing pipelines and their licence areas, rivers, creeks, highways, railways, shore crossings, etc.) must be displayed. Proponents will have the ability to upload crossings that are a point, line or polygon (separate files are required for each geometry type):

Data Source Properties:

PROPERTY	VALUE	COMMENTS
Data Type	Shapefile Feature Class	
Geometry Type	Point, Line or Polyon	
Geographic Coordinate System	GCS_GDA_1994	
Datum	D_GDA_1994	
Prime Meridian	Greenwich	
Angular Unit	Degree	

Fields/Attributes:

ATTRIBUTE NAME	DATA TYPE	SIZE/LENGTH	COMMENTS
FID	Object ID		This is generated by ArcMap and allows you to identify how many objects there are in the layer. The first object has FID = 0
Shape	Geometry		Point, Line or Polyon
ID	double		A unique identifier
NAME	string	300	This is the Name/Identifier of the crossing
DESCRIPTION	string	300	This is the description of the crossing

APPLIANCES AND APPURTANCES

Any proposed appliances or appurtances intended to be used in connection with the operation of the proposed pipeline (e.g. Odorant Plant, gas heater unit – gas fired water bath heater or electric heater). Proponents will have the ability to upload appliances and appurtenances that are a point, line or polygon (separate files are required for each geometry type):

Data Source Properties:

PROPERTY	VALUE	COMMENTS
Data Type	Shapefile Feature Class	
Geometry Type	Point, Line or Polyon	
Geographic Coordinate System	GCS_GDA_1994	
Datum	D_GDA_1994	
Prime Meridian	Greenwich	
Angular Unit	Degree	

Fields/Attributes:

ATTRIBUTE NAME	DATA TYPE	SIZE/LENGTH	COMMENTS
FID	Object ID		This is generated by ArcMap and allows you to identify how many objects there are in the layer. The first object has FID = 0
Shape	Geometry		Point, Line or Polyon
ID	double		A unique identifier
NAME	string	300	This is the Name/Identifier of the Appliance or Appurtenance
TYPE	string	300	Free text describing the type of appliance or appurtenance

Note: Ref: Oxford Dictionary – appurtenances = accessories/belongings
appliance = device, etc. for specific tasks