EXPLANATORY STATEMENT

Select Legislative Instrument 2010 No. 29

OFFSHORE PETROLEUM AND GREENHOUSE GAS STORAGE (GREENHOUSE GAS DATUM) REGULATIONS 2010

(Circulated by authority of the Minister for Resources and Energy, the Honourable Martin Ferguson AM, MP)
GENERAL OUTLINE

The Regulations are made in accordance with section 781 of the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (the Offshore Act).

The Offshore Act provides the legal framework for the exploration for and recovery of petroleum and for the injection and storage of greenhouse gas substances in those parts of Australia's continental shelf and Exclusive Economic Zone which are under Commonwealth jurisdiction. The regulator for all greenhouse gas related activities under the Offshore Act is the responsible Commonwealth minister (currently the Hon Martin Ferguson AM MP, Minister for Resources and Energy).

Section 41 of the Offshore Act provides for the regulations to declare that, for the purposes of describing the position on the surface of the Earth of a point, line or area in a title (ie greenhouse gas assessment permit, holding lease, injection licence, search authority or special authority) or other instrument under the Offshore Act, a specified datum is to be the current datum.

The purpose of the Regulations is to prescribe the Geocentric Datum of Australia (GDA) as the current datum.

A Datum is a set of reference points on the Earth’s surface. The Geocentric Datum of Australia 1994 (GDA94) uses an internationally agreed point as the centre of the Earth, and a global best-fit mathematical model of the shape of the Earth. This maximises compatibility across geographic systems at the local, regional, national and global level, and is directly compatible with the Global Positioning System (GPS). Under the Offshore Act, areas under title (either petroleum or greenhouse gas) must consist of an integral number of blocks. The boundaries of these blocks are defined by gridlines at 5 minute intervals of latitude and longitude starting respectively using the GDA as the reference point. This means that, when conducting activities offshore companies can identify the position of a point on the seabed.

The Regulations are a substantially identical version of the Petroleum (Submerged Lands) (Datum) Regulations 2002 (which are still applicable for all petroleum related activities). They are specifically designed to apply to greenhouse gas related activities which were recently incorporated into the Offshore Act in November 2008 and will apply as an interim measure pending the conclusion of the current regulation consolidation exercise.

Details of the Regulations are set out in the Attachment.

Stakeholder consultation in respect of the Datum Regulations was undertaken in July-October 2009.
2.

FINANCIAL IMPACT STATEMENT

These amendments do not have any financial impact on the Australian Government budget.

REGULATORY IMPACT STATEMENT

These amendments do not pose new regulatory burden on the petroleum or greenhouse gas storage industries.
NOTES ON INDIVIDUAL CLAUSES

Regulation 1 - Name of Regulation

This provides for the title of the Regulations to be the *Offshore Petroleum and Greenhouse Gas Storage (Greenhouse Gas Datum) Regulations 2010*.

Regulation 2 - Commencement

The Regulations commence on the day following registration on the Federal Register of Legislative Instruments.

Regulation 3 - Definitions

This clause makes clear that the Act referred to in the Regulations is the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* and directs the reader to Schedule 1 for the definition of "Geocentric Datum of Australia". The reader is also directed to various sections of the Offshore Act for certain other definitions used in the Regulations.

Regulation 4 - Declaration of current datum (Act s 41)

Section 41 of the Offshore Act enables the current datum to be declared by regulation, and such a declaration means that the current datum replaces the previous datum. This Regulation declares the current datum to be the Geocentric Datum of Australia (GDA), which is described in greater detail in Schedule 1.

Regulation 5 - Documents submitted to responsible Commonwealth Minister

In the Offshore Act, one can find references to records and other documents (which may include geographic coordinates) that must or may be prepared by title-holders. Examples of these are safety cases, environment plans, applications for approval to drill a well, periodic reports and final reports on wells and surveys.

If such a record or document is submitted for consideration under the Offshore Act and it refers to geographic coordinates but does not specify the datum, the responsible Commonwealth Minister or greenhouse gas project inspector has the option to either consider the document or request the submitter to provide the required information applying to the datum within 14 days. If that requested information is not received within the required timeframe (via any convenient method, including email and facsimile transmission) the responsible Commonwealth Minister or greenhouse gas project inspector may reject or refuse to consider the record or document.
Regulation 6 - Documents made or prepared under Act etc

This Regulation refers to records and documents prepared by industry members, other than title documents, that are required under the Offshore Act. If any geographic coordinate is mentioned in these documents it would need to refer to GDA (the current datum). If not, the document will not serve the purpose it is meant to serve (ie meeting a requirement or validly putting forward an application of some kind).

Schedule 1 - Geocentric Datum of Australia

A Datum is a set of reference points on the Earth’s surface. The Geocentric Datum of Australia 1994 (GDA94) uses an internationally agreed point as the centre of the Earth, and a global best-fit mathematical model of the shape of the Earth. This maximises compatibility across geographic systems at the local, regional, national and global level, and is directly compatible with the Global Positioning System (GPS). Under the Offshore Act, areas under title (either petroleum or greenhouse gas) must consist of an integral number of blocks. The boundaries of these blocks are defined by gridlines at 5 minute intervals of latitude and longitude starting respectively using the GDA as the reference point. This means that, when conducting activities offshore companies can identify the position of a point on the seabed.

This Schedule defines the GDA. The definition contains a number of geodetic specifications. The "Reference Ellipsoid" has the geometric form that the datum assumes to represent the size and shape of the Earth. The "semi-major axis" represents the radius of the Earth at the equator. The other quantity is the "semi-minor axis", which represents the radius of the Earth at the north or south pole. The "flattening" is a way of describing the relationship between the lengths of the semi-major axis and the semi-minor axis. The "inverse flattening" is the reciprocal of this. Thus the value of the inverse flattening that is given means that when 1 is divided by 298.257222101, it gives the fraction of the semi-major axis length by which the semi-minor axis is shorter than the semi-major axis. This equates to around 0.34 percent of the semi-major axis length.

The "Reference Frame" establishes the datum by tabulating very precisely the latitude and longitude of 8 geodetic stations around Australia as well as their height above the Reference Ellipsoid. In practice this means that, if a person's satellite navigation equipment is set so that it shows the specified geographic coordinate at each of the 8 geodetic stations, that equipment will also correctly show the geographic coordinate of any location when it comes to surveying the boundaries of a petroleum tenement at sea. This is true within the limitations of the GPS system and the positioning techniques used.