



Submission No. 02

(ANSTO Project)

Date: 25/01/13

**Sutherland Shire Council Submission to Parliamentary
Standing Committee on Public Works
ANSTO Nuclear Medicine Project**

January 2013

Introduction and Background

Sutherland Shire Council acknowledges the important role played by ANSTO in development of nuclear technology and nuclear medicine. Council is supporting expansion of many operations at ANSTO, including recent support for the 2010 proposal for the new centre for accelerator science and other facilities. Council works cooperatively with ANSTO to bring about economic and social benefits to ANSTO and the Sutherland Shire community.

However Council remains concerned over the issue of generation and storage of nuclear wastes. This is reflected in Council's recent concerns over the proposal for the development of an interim intermediate level waste storage facility at the ANSTO Lucas Heights site. It is these ongoing issues with increased generation and storage of wastes associated with the Nuclear Medicine Project that raise the greatest concerns for Council

Lack of Information

Sutherland Shire Council is concerned over the lack of information available to Council and the public on which to make informed decisions related to the nuclear medicine project. This lack of information also significantly impacts on Council's ability to make an informed submission to the Parliamentary Standing Committee. The only information available is the statement of evidence provided to the Standing Committee (as provided on the Parliament of Australia website) from ANSTO, a brief media release and video on the ANSTO website, and the brief summary of the proposal on the Parliament website. The ANSTO statement makes reference to a licence application to ARPANSA which would no doubt contain valuable information, however this licence application is not available on the ANSTO website, or the ARPANSA website.

The information available to Council and the public is not even sufficient in detail to determine the scale and size of the proposed Mo-99 facility. The only detail provided is that there will be an increase in the production of Mo-99 so that it can 'meet a significant proportion of the world's increasing demand for Mo-99'. This gives no indication of the scale of the increase in production, and hence the scale of the increase in waste production.

Similarly there is no detail over the size and scale of the proposed synroc facility. Reference is made to the ability to treat the legacy waste accumulated over the past 50 years, but this does not indicate the size of the plant and the amount of waste such a facility would be able to treat on an annual basis. There is also no indication of how the additional capacity of the plant that may be utilised once this backlog of waste has been dealt with.

This lack of basic information on the size and capacity of these facilities represents a major deficiency in the public consultation process.

Need for the Facility

Sutherland Shire Council supports the production of life saving medical isotopes at the ANSTO facility. Council is aware of the current issues affecting the worldwide supply and production of medical isotopes. The 2010 review of potential Mo-99 production technologies by the Nuclear Energy Agency, examined a range of production technologies and considered production of Mo-99 using low enriched uranium (LEU) in research reactors to be the best short term option to address current shortages. As such it is recognised that the technology to be employed by ANSTO for the increased production of Mo-99 is both needed and represents best available practice.

Council is also aware of the aging nature of the current nuclear medicine production facilities at the Lucas Heights site. This aged infrastructure has contributed to a number of radiological incidents over the past few years. The upgrade of the facilities and subsequent changes to production and handling procedures is seen as an opportunity to improve this performance and improve safety for all.

Similarly Council considers that the proposed synroc facility potentially represents the best available technology for treating the waste associated with medical isotope production. The facility will provide an opportunity to consolidate wastes associated with the past 50 years of nuclear medicine production.

Again however, there is little information available in terms of scale and size of production on which to make decision as to whether this represents appropriate investment. While the information provided indicates that synroc has advantages over traditional means of consolidation and encapsulation (reducing volumes by up to 99%) there is no information as to whether the final product is inherently safer, and results in reduced activity and exposure compared to the current situation or traditional methods.

Council Concerns

Molybdenum 99 Production

While Council acknowledges the benefits of increasing and upgrading Mo-99 production at the Lucas Heights facility, we are concerned over the lack of detail as to something as simple as the proposed size of the facility. Within increased production comes increased risk and increased waste production.

The absence of a national radioactive waste repository is a significant concern to Council. In the absence of such a facility radioactive waste continues to accumulate at the Lucas Heights facility. When approval was granted for the OPAL Reactor, recommendations of approval included that 'reactor construction should not be authorised until arrangements for the management of spent fuel rods from the replacement reactor have been demonstrated'. Despite the construction and operation of the reactor, such satisfactory arrangements are still to be made. Council considers that it is not prudent to grant approval for a facility which will increase the production of radioactive wastes until such a time that a national repository is established and satisfactory arrangements for the management and disposal of wastes from the production facility have been made.

Synroc Facility

While Council acknowledges the benefits of processing nuclear wastes using the synroc process, we are again concerned regarding the lack of detail as the size and production/processing capacity of the plant.

It is envisaged that the plant will be designed to deal with the increased capacity of the new Mo-99 facility and have some residual capacity to deal with the 50 year backlog of existing waste. Once the residual waste is processed there is concern as how this additional capacity will be used. Of particular concern is the unrestricted desire to use this facility as a demonstration facility, 'demonstrating the potential for other nations to import this Australian technology'. There is no indication as to the size of this potential demonstration, and how and where the 'wastes to be processed as a demonstration' will be sourced. Council is concerned that wastes may be imported from overseas and processed at the Lucas Heights facility as part of this demonstration. Without restriction this may result in the Synroc facility becoming a de facto waste processing plant for wastes other than those generated by ANSTO. While there may be constraints under the ANSTO Act which do not allow for the storage of these wastes on site potential may exist for imported wastes to be processed then returned.

Also of concern is the fact that while the synroc facility allows for the efficient processing of nuclear wastes, the end result will still be the storage of those wastes on site at ANSTO. Council is concerned that once wastes are processed, there will be reduced urgency in the need to remove them from site to a more appropriate storage location. Again Council feels that in the absence of a national nuclear waste repository that approval of such a facility is irresponsible.

Summary

While Council supports the operations of ANSTO, in particular the production of nuclear medicine, the lack of detail associated with the size and scope of the current proposal, and the outstanding issues of nuclear waste management as such that, at present Council would require this information prior to providing its support to the Nuclear Medicine Project.