

## **Quick Checklist of Things to Consider When Planning the Startup of a New Facility to process Radioactive Materials**

Following is a brief overview checklist of typical things that may be helpful in reviewing cost estimates, business plans, or designs for the creation of a new facility for processing radioactive materials or low level waste under an NRC-Agreement State Radioactive Materials License. This checklist is for a small startup. For a facility where only sealed sources such as those used in gages, instruments, measurement or imaging devices, or detection devices are employed then this list is far too rigorous, whereas it is not nearly extensive enough for very large or highly specialized facilities. Many of the things listed here would be described briefly in your application for a Radioactive Materials License.

<b><i>Facility and Equipment Design</i></b>	HVAC - media selection, changeout procedures, capital and O&M costs, performance, flow rates, gages, expandability, impact on facility operations, cost, impact on PPE cost, and exposure
	shielding calculations
	workplace air and personnel monitoring
	ease of decontamination
	expected occupancy
	ALARA design review
	fenceline exposure levels
	discharge treatment and monitoring
<b><i>Radiation Safety Program</i></b>	RSO Qualification
	Radworker training program
	RadCon Tech training program
	visitor control
	area access and boundaries
	notices, postings, and labeling
	dosimetry
	dose evaluation
	skin contamination control
	respiratory protection, fit testing, training
	sealed sources - surveys, storage, and control
	radiation detection instruments - backup, calibration, and repair
	criticality safety program - modeling, procedures, controls
	radioactive materials continuous inventory control
ALARA program and action levels	
personnel monitoring and contamination control	
exposure reporting	
<b><i>Regulatory Compliance Program</i></b>	generally accepted industry standards
	10CFR20 or Agreement-State equivalent
	license application
	regulatory correspondence
	corporate auditing
	self auditing
	independent auditing
possession limit monitoring	

<b>Records</b>	program descriptions
	detailed procedures
	discharge records
	conveyance surveys
	package surveys
	area surveys
	personnel decontamination
	free release surveys
	instrument calibration
	filter changeouts
	pocket dosimeter readings
	workplace air monitoring
	visitor logs
	sealed source surveys and logs
	employee exposure reports
	contamination event dose estimates
	lost dosimetry estimates
	environmental measurements
	fenceline dosimetry
	work permits
	ALARA reviews
compliance audits	
training attendance records	
training content	
package testing	
package maintenance and repair	
<b>Emergency Planning and Response</b>	scenario development
	drills and exercises
	plume modeling
	evacuation plan
	recovery plan
	firefighter advisement
	notifications
	responder designation
	agency interface
transportation accident response	
<b>D&amp;D</b>	standards
	sampling plan
	detailed time indexed estimate
	contingency fund