lens of a systems nature were given adequate space in the 15% of the book allotted to Space Technology.

In summary, the book did not achieve its purpose in outlining the technical and scientific challenges to space. It provides an excellent history and status of governmental programs and international activities in space and similarly an excellent discussion of the more basic scientific problem areas of interest in space. It is not recommended for reading on the engineering aspects of space technology.

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(About the Reviewer: Mr. Trapp is currently Chief of Man-
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Mr. Trapp's previous experience includes six years with
Douglas Aircraft Company, Missiles and Space Division,
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has been active for some years in the American Nuclear So-
ciety, serving as chairman to the recently organized Aerospace
Division; he served as chairman of the Los Angeles section of
the American Nuclear Society and is currently a candidate
for the Board of Directors.)

X, 3.) JERRY L. WEINSTEIN, ed. A Pergamon Press Book,

Progress in Nuclear Energy, Series X on “Law and
Administration,” has as Volume 3 this comprehensive
summary on nuclear liability.

For the most part, this is somewhat heavy reading; however, in total, it is extremely intriguing. For here in
one volume one finds legal and administrative problems
and a status report on the still preliminary effort towards
resolving the knotty questions of nuclear liability that
make current day questions of nuclear design and materials
seem relatively straightforward and soluble.

Here is a new industry that has exploded into being, as
compared to the gradual evolution of all previous major
industries, which involves certain risks quite unlike those
with which we have long been familiar. For whenever
radioactive materials are present a potential hazard may
be said to exist. It is still too early to establish the extent
of the potential hazard (conceivably catastrophic), who is
responsible for its control, or even at the time of an accident
determine its ultimate extent because the effects of exposure
to radiation may be delayed many years. Add to these
uncertainties the complexities of private versus public
control, international participation, land and water ship-
ment of potentially hazardous materials, nuclear ships as
well as land based stations, multisupplier participation,
limited insurance coverage, etc., and you have a plot that
thickens as you read.

The editor, in the introduction, defines the problem well,
including an explanation of the nature of liability, licensing
and safety, personal liability, transport of radioactive
materials insurance, state responsibility, national legisla-
tion, the Paris Convention, and nuclear ships. This is
followed by sixteen articles by recognized authorities
covering each of the major topics identified in the intro-
duction. In conclusion, the volume includes six appendixes
which present the existing legislation on nuclear liability
in the United States, the Federal Republic of Germany,
Switzerland, the United Kingdom, Sweden, and the OECD
Convention.

The volume provides a comprehensive discussion and
analysis of probable or possible application of law and legal
principles to various activities involving nuclear materials.
It presents a summary of the growing body of national and
international law designed to adopt existing or establish
new rules of liability to meet the unique risks and character-
istics associated with the production and utilization of
atomic energy.

For persons engaged in, or associated with, atomic energy
activities, the legislative treatment of liability in connec-
tion with operation of nuclear reactors, supplying com-
ponents, transportation of fuel elements, and handling of
reactor wastes is particularly interesting and illuminating.
The articles dealing with liability aspects of international
transactions and operation of nuclear-powered ships give
the reader a good insight into the problems involved and
the solutions attained or in process through international
conventions. On reflection, it is somewhat staggering to
encompass the amount of effort and time which has been
devoted over the past several years in fitting nuclear energy
into society’s laws and customs—or perhaps adjusting
society’s laws and customs to atomic energy.

Undoubtedly, the hazards associated with some nuclear
activities demand the comprehensive licensing and regula-
tion programs of the United States and other countries
which are described in this volume. The paradox of this
and the extensive treatment of the measures taken to pro-
vide for “liability” is that in the more than 20 years ex-
perience of nuclear operations the safety records in nuclear
installations are better than most other industries. The
articles reviewing nuclear incidents and summarizing
concepts and procedures in safety evaluation do a good
job of bringing this fact into focus.

In the light of this, there is cause to be concerned whether
society may over legislate in a manner which will stifle
the full development of atomic energy, and whether it is
in the over-all best interest of society to have the atomic
energy industry and its associated activities relegated to
such severe legal duties in order to protect against very
remote possibilities of harm or damage.

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(About the Reviewer: Sam R. Sapirie has had thirty years
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1948 as Assistant Director of Operations of the Manhattan
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struction with the Corps of Engineers in the Milwaukee District
and in Western Canada and Alaska). When the Atomic Energy
Commission received custody of the program in January 1949,
he became Director of Production and Engineering and later
Deputy Manager before becoming Manager, Oak Ridge Opera-
tions, in February 1951.)